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**VOLUME I** 

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TECHNICAL REPORT
WHITE OAK LABORATORY

HANDBOOK OF INVISCID SPHERE-CONE FLOW FIELDS AND PRESSURF DISTRIBUTIONS VOLUME I

**1 DECEMBER 1975** 

NAVAL SURFACE WEAPONS CENTER WHITE OAK LABORATORY SILVER SPRING, MARYLAND 20910

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This report contains numerical tables of aerodynamic coefficients and surface pressure distributions for sphere cone configurations as a function of angle of attack and Mach number. These results were generated by an NSWC/WOL computer code based on a finite difference solution of the steady inviscid three-dimensional compressible flow equation for a perfect gas 7 = 1.4. Cone half angles of 50, 60, 70, 80, 90, 100, 150 and 200 are considered. Truncated values are obtained at axial stations to

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HANDBOOK OF INVISCID SPHERE-CONE FLOW FIELDS AND PRESSURE DISTRIBUTIONS - VOLUME I

This report contains numerical tables of surface-pressure distribution and aerodynamic coefficients for sphere cone configurations over a range of Mach numbers and angles of attack relevant to typical re-entry environments. These results were generated by an NSWC/WOL computer code based on a finite difference solution, of the steady inviscid three-dimensional compressible flow equations for a perfect gas  $\gamma = 1.4$ . This work was sponsored by Naval Sea Systems Command and carried out under the Aeroballistic Re-Entry Technology Program, L. Pasiuk, NAVSEA 035 Manager. This project was performed under task number SF 3232250F.

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KURT R. ENKENHUS By direction

Karth Entundar

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	Mach					Angle			Angle	of	Attack	==	00.		•	52
	Mach					Angle			Angle	of	Attack	=	00			54
	Mach				Cone	Angle	=	50	Angle	of	Attack	=	ňo.	•	•	54
	Mach				Cone	Angle	_	50			Attack	=		•	•	54
	Mach				Cone	Angle	_	50			Attack	_		•	•	56
	Mach				Cone	Angle	_	60	Anglo	of.	Attack	_	vo.	•	•	58
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	Mach			10.0			_	60	_		Attack		0°.	•	•	58
	Mach					Angle	_	60					°:	٠	•	60
	_			15.0		Angle		6 6	_		Attack		_	•	•	60
	Mach			20.0		Angle	=	60			Attack		00.	•	•	
	Mach			25.0		Angle	=	60			Attack		- 0	•	•	60
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	Mach	No.	=	20.0	Cone	Angle	=	8~	Angle	of	Attack	=	00.	•	•	72
	Mach	No.	=	25.0	Cone	Angle	=	8			Attack		00.	•	•	72
	Mach	No.	=	30.0	Cone	Angle	=	0-	Angle	of	Attack	=	oo:	•	•	74
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	Mach	No.	=	25.0	Cone	Angle	=	90	Angle	of	Attack	=	0.	•	•	78
	Mach	No.	=	30.0	Cone	Angle	=	90	Angle	of	Attack	=	ΛO		•	80
	Mach	No.	===	3.5	Cone	Angle	=	100	Angle	of	Attack	=	٥ <u>٠</u> .	•	•	82
				5.0	Cone	Angle	=	100	Angle	of	Attack	=	0,	•	•	82
				10.0	Cone	Angle	=	10°	Angle	of	Attack Attack Attack Attack	=	06.			82
	Mach				Cone	Angle	=	10°	Angle	of	Attack	=	00.		•	84
				20.0	Cone	Angle	=	10	Angle	of	Attack	=	000			84
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				3.5	Cone	Angle	=	150	Angle	of	Attack	=	00.		•	88
				5.0	Cone	Angle	=	150	Angle	of	Attack	=	00.	•		88
				10.0	Cone	Angle	=	15°	Angle	of	Attack	=	00.			88
				15.0	Cone	Angle	=	150	Angle	of	Attack Attack	=	00.			90
				20.0	Cone	Angle	=	150	7 7 -	~ €	744	_	Λ0	•	•	90
				25.0		Angle	=	150	7 7	_£	7441-	_	Λ-	•	•	90
				30.0	Cone	Angle	=	150	Angle	of	Attack	=	00		-	92
	110011	140.	_	J U . V	00116		-	ب.		<b>-</b>			•	•	•	

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Cone Angle = 20^{\circ} Angle of Attack = 0^{\circ}
Mach No. =
              3.5
                    Cone Angle = 20^{\circ}
Mach No. = 5.0
                                       Angle of Attack =
                   Cone Angle = 20^{\circ}
Mach No. = 10.0
                                       Angle of Attack =
                   Cone Angle = 20°
                                                                       96
                   Cone Angle = 20° Angle of Attack = Cone Angle = 20° Angle of Attack =
Mach No. = 15.0
                                       Angle of Attack =
                   Angle = 20° Angle of Attack = Cone Angle = 20° Angle of Attack = Cone Angle = 20° Angle of Attack
Mach No. = 20.0
                                                                       96
Mach No. = 25.0
                                                                       96
                                    20 Angle of Attack = 5 Angle of 3
                                                                       98
Mach No. = 30.0
                                                                      100
Mach No. =
              3.5
                    Cone Angle =
                                       Angle of Attack =
                                                                      102
Mach No. =
              5.0
                    Cone Angle =
                                       Angle of Attack =
                                                                      104
Mach No. = 10.0
                   Cone Angle =
                                       Angle of Attack =
                                                                      106
Mach No. = 15.0
                   Cone Angle =
                                       Angle of Attack =
                                                                   . 108
Mach No. = 20.0
                   Cone Angle =
                                       Angle of Attack =
                                                                   . 110
Mach No. = 25.0
                   Cone Angle =
                                       Angle of Attack =
                                       Angle of Attack =
Mach No. = 30.0
                   Cone Angle =
                                    6 Angle of Attack =
Mach No. =
             3.5
                   Cone Angle =
                                   6°
Mach No. = 5.0
                   Cone Angle =
                                   6°
                                       Angle of Attack =
                                                                      118
Mach No. = 10.0
                                   6°
                                       Angle of Attack =
                   Cone Angle =
                                                                      120
Mach No. = 15.0
                   Cone Angle =
                                   60
                                       Angle of Attack =
Mach No. = 20.0
                   Cone Angle =
                                       Angle of Attack =
Mach No. = 25.0
                   Cone Angle =
                                       Angle of Attack =
                                                                      126
Mach No. = 30.0
                   Cone Angle =
                                       Angle of Attack =
                                   <del>7</del>0
                                                                     128
Mach No. = 3.5
                   Cone Angle =
                                       Angle of Attack =
                                    70
                                                                      130
Mach No. = 5.0
                   Cone Angle =
                                       Angle of Attack =
                                    70
                                                                      132
Mach No. = 10.0
                   Cone Angle =
                                       Angle of Attack =
                                                                     134
Mach No. = 15.0
                   Cone Angle =
                                       Angle of Attack =
                                   70
                                                                     136
Mach No. = 20.0
                   Cone Angle =
                                       Angle of Attack =
                                   7°
Mach No. = 25.0
                   Cone Angle =
                                       Angle of Attack =
                                   7°
                                                              o •
Mach No. = 30.0
                   Cone Angle =
                                       Angle of Attack =
                                   80
                                                                      142
Mach No. =
             3.5
                   Cone Angle =
                                       Angle of Attack =
                                   8<sup>0</sup>
                                                                      144
Mach No. =
              5.0
                   Cone Angle =
                                       Angle of Attack =
                                   80
                                                             ٥.
                                                                      146
Mach No. = 10.0
                   Cone Angle =
                                       Angle of Attack =
                                   80
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                                                                      148
Mach No. = 15.0
                   Cone Angle =
                                       Angle of Attack =
                                   80
                                                                      150
Mach No. = 20.0
                   Cone Angle =
                                       Angle of Attack =
                                   80
                                       Angle of Attack =
                                                                      152
Mach No. = 25.0
                   Cone Angle =
                                    80
                                                                      154
Mach No. = 30.0
                   Cone Angle =
                                       Angle of Attack =
                                                                     156
Mach No. =
              3.5
                   Cone Angle =
                                       Angle of Attack =
                                   90
                                                                     158
                   Cone Angle =
                                       Angle of Attack =
Mach No. =
              5.0
                                   90
                                                                     160
Mach No. = 10.0
                   Cone Angle =
                                       Angle of Attack =
                                   90
                                                                     162
Mach No. = 15.0
                   Cone Angle =
                                       Angle of Attack =
                                   90
                   Cone Angle =
Mach No. = 20.0
                                       Angle of Attack =
                                   90
                                                                      166
Mach No. = 25.0
                   Cone Angle =
                                       Angle of Attack =
                                  9<sup>0</sup>
                                                                      168
Mach No. = 30.0
                   Cone Angle =
                                       Angle of Attack =
                   Cone Angle = 10^{\circ}
                   Cone Angle = 10° Angle of Attack = Cone Angle = 10° Angle of 21° Cone 20°
                                                                      170
             3.5
                                       Angle of Attack =
Mach No. =
                   Cone Angle = 10°
                                                                      172
Mach No. =
             5.0
                   Cone Angle = 10° Angle of Attack = 1
Cone Angle = 10° Angle of Attack = 1
Cone Angle = 10° Angle of Attack = 1
Cone Angle = 10° Angle of Attack = 1
Mach No. = 10.0
                                                                      174
                                                                      176
Mach No. = 15.0
                                                                      178
Mach No. = 20.0
Mach No. = 25.0
Mach No. = 30.0 Cone Angle = 10 Angle of Attack = 1
```

													F	age
Mach Mach Mach Mach Mach	No. No.	=======================================	5.0 10.0 15.0	Cone Cone	Angle = Angle = Angle = Angle =	15°C 15°C 15°C	Angle Angle Angle	of of of	Attack Attack Attack Attack Attack	=======================================	10.	•	•	184 186 188 190 192 194
Mach Mach	No.	=	30.0	Cone	Angle =	= 15 = 15	Angle	of	Attack Attack	=	т~•	•	•	196 198
Mach Mach	No.	=		Cone	Angle =	= 20 <sub>0</sub>	Angle	of	Attack Attack Attack	=	10. 10.	•	•	200 202
Mach	No.	=	10.0 15.0 20.0	-Cone	Angle = Angle =	= 20	Angle	of	Attack Attack	=	10.	•	•	204 206
Mach	No.	=	25.0 30.0	Cone	Angle = Angle =	= 20	Angle	of	Attack Attack	=		•	•	208 210
Mach	No.	=	3.5 5.0	Cone	Angle =	= 5	Angle	of of	Attack Attack	= =	30.	•	•.	212 214 216
Mach	No.	=	10.0 15.0	Cone	Angle =	= 5	<b>7 756</b>	of	Attack Attack	=	30.	•	•	218 218 220
Mach	No.	=	20.0 25.0 30.0	Cone	Angle = Angle =	= 5)	'Angle	of	Attack Attack Attack	=	30.	•	•	222 224
Mach	No.	=	3.5 5.0	Cone	Angle :	= 6 <sup>0</sup>	Angle Angle	of of	Attack Attack	=	30.	•	•	226 228
Mach Mach	No.	=	10.0 15.0	Cone	Angle :	= 6 <u>`</u>	Angle	of	Attack Attack	=	30.	•	•	230 232 234
Mach	No.	==	20.0 25.0	Cone	Angle : Angle :	= 6	Angle	of	Attack Attack Attack	=	30.	•	•	236 238
	No.	=	30.0 3.5 5.0	Cone	Angle :	= 7	Angle	of	Attack Attack	=	30.	•	•	240 242
	No.	=	10.0 15.0	Cone Cone	Angle :	= 7	Angle	of of	Attack Attack	=	30. 30.	•	•	244 246
Mach	No.	=	20.0	Cone	Angle Angle	_ 7`		_	Attack Attack Attack		30.	•	•	248 250 252
Mach Mach Mach	No.	=		Cone	Angle Angle Angle	= 8	o Angle	O L	Attack Attack		J ~ .	•	•	254 256
Mach	No.	=	10.0 15.0	Cone	Angle Angle	= 8) - 0	Angle	of of	Attack Attack	=======================================	3°.	•	•	258 260
Mach Mach	Nc.	=	20.0 25.0	Cone	Angle Angle	= 8 = 8	Angle	of	Attack Attack	=	30.	•	•	262 264 266
Mach Mach Mach	No.	=	-	Cone	Angle Angle Angle	= 9	Angle	of	Attack Attack Attack	=	30.	•	•	268 270
Mach	No.	=	10.0	Cone	Angle Angle	= 9	Angle	of of	Attack Attack	=	30.	•	•	272 274
Mach Mach	No.	. = . =	20.0 25.0 30.0	Cone	Angle Angle Angle	= <sup>1</sup> 9	O Angle O Angle	of of	Attack Attack Attack	=	3°.	•	•	276 278 280

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Cone Angle = 10^{\circ} Angle of Attack = 3^{\circ}
                                                                  282
             3,5
Mach No. =
                  Cone Angle = 10° Angle of Attack = 3°
                                                                  284
             5.0
Mach No. =
                  Cone Angle = 10° Angle of Attack = 3°
                                                                  286
Mach No. = 10.3
                  Cone Angle = 10 Angle of Attack =
                                                                  288
Mach No. = 15.0
                  Cone Angle = 100 Angle of Attack =
                                                                  290
Mach No. = 20.0
                  Cone Angle = 10° Angle of Attack = 3
                                                                  292
Mach No. = 25.0
                  Cone Angle = 10° Angle of Attack = 3°
                                                                  294
Mach No. = 30.0
                  Cone Angle = 15° Angle of Attack =
                                                                  296
Mach No. =
             3.5
                  Cone Angle = 15° Angle of Attack = 3° Cone Angle = 15° Angle of Attack = 3°
                                                                  298
             5.0
Mach No. =
                                                                  300
Mach No. = 10.0
                  Cone Angle = 15° Angle of Attack =
                                                                  302
Mach No. = 15.0
                  Cone Angle = 15° Angle of Attack =
                                                                  304
Mach No. = 20.0
                  Cone Angle = 150
                                                                   306
                                     Angle of Attack =
Mach No. = 25.0
                  Cone Angle = 15°
                                     Angle of Attack =
Mach No. = 30.0
                                                          0.
                   Cone Angle = 20^{\circ}
                                                                   310
                                     Angle of Attack =
Mach No. =
             3.5
                                                          0.
                   Cone Angle = 20°
                                     Angle of Attack =
                                                                   312
             5.0
Mach No. =
                   Cone Angle = 20^{\circ}
                                                                   314
                                      Angle of Attack =
Mach No. = 10.0
                   Cone Angle = 20^{\circ}
                                                                  316
                                      Angle of Attack = 3
Mach No. = 15.0
                   Cone Angle = 20^{\circ}
                                                                  318
                                     Angle of Attack = 3
Mach No. = 20.0
                   Cone Angle = 20°
                                     Angle of Attack = 30
                                                                  320
Mach No. = 25.0
                   Cone Angle = 20°
                                     Angle of Attack = 30
                                                                  322
Mach No. = 30.0
                   Cone Angle = 50
Cone Angle = 50
                                      Angle of Attack = 5
                                                                  324
Mach No. =
             3.5
                                      Angle of Attack = 5
                                                                  326
             5,0
                                  5°
Mach No. =
                                      Angle of Attack = 50
                                                                  328
Mach No. = 10.0
                   Cone Angle =
                                      Angle of Attack = 5
                                                                  330
Mach No. = 15.0
                   Cone Angle =
                                  5°
                                      Angle of Attack = 50.
                                                                   332
Mach No. = 20.0
                                  50
                   Cone Angle =
                                                          0
                                                                   334
                                  5°
                                      Angle of Attack = 5
Mach No. = 25.0
                   Cone Angle =
                                      Angle of Attack = 5
                                                                   336
                                  60
Mach No. = 30.0
                   Cone Angle =
                                      Angle of Attack = 5
                                                                   338
             3.5
                   Cone Angle =
Mach No. =
                                      Angle of Attack = 50
                                                                   340
            5.0
                   Cone Angle =
Mach No. =
                                  6<sup>0</sup>
                                                                   342
                                      Angle of Attack = 5^{\circ}
                   Cone Angle =
Mach No. = 1.0.0
                                      Angle of Attack = 5^{\circ}
Mach No. = 15.0
                   Cone Angle =
                                      Angle of Attack = 50.
                                                                  346
                   Cone Angle =
Mach No. = 20.0
                                      Angle of Attack = 50
                   Cone Angle =
Mach No. = 25.0
                                      Angle of Attack = 50
                                                                   350
                   Cone Angle =
Mach No. = 30.0
                                  70
                                      Angle of Attack = 50
                                                                   352
             3.5
                   Cone Angle =
Mach No. =
                                      Angle of Attack = 50.
                                  7<sup>0</sup>
                                                                   354
                   Cone Angle =
Mach No. = 5.0
                                      Angle of Attack = 5°.
                                                                   356
Mach No. = 10.0
                   Cone Angle =
                                      Angle of Attack = 50
                                                                   358
Mach No. = 15.0
                   Cone Angle =
                                      Angle of Attack = 50.
                                                                   360
Mach No. = 20.0
                   Cone Angle =
                                      Angle of Attack = 5°.
                                                                   362
Mach No. = 25.0
                   Cone Angle =
                                  7<sup>0</sup>
                                      Angle of Attack = 5°.
                                                                   364
Mach No. = 30.0
                   Cone Angle =
                                  8°0
                                      Angle of Attack = 50.
                                                                   366
                   Cone Angle =
Mach No. = 3.5
                                      Angle of Attack = 50.
                                  8°0
                                                                   368
Mach No. = 5.0
                   Cone Angle =
                                      Angle of Attack = 50.
                                  8<sup>0</sup>
                                                                   370
Mach No. = 10.0
                   Cone Angle =
                                  8°0
                                      Angle of Attack = 5°.
                                                                   372
 Mach No. = 15.0
                    Cone Angle =
                                  8<sup>0</sup>
                                      Angle of Attack = 50.
Mach No. = 20.0
                    Cone Angle =
                                  8°
                                      Angle of Attack = 5°.
                                                                   376
Mach No. = 25.0
                   Cone Angle =
                                      Angle of Attack = 50.
                    Cone Angle = 80
 Mach No. = 30.0
```

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90
                                                                                                                                                                                                                                                                   . .380
                                                                                                                                                          Angle of Attack =
                                                                             Cone Angle =
                                                      3:.5
Mach No. =
                                                                                                                                           90
                                                                                                                                                          Angle of Attack =
                                                                              Cone Angle =
Mach No. =
                                                       5.0
                                                                                                                                           9°
                                                                                                                                                         Angle of Attack =
                                                                                                                                                                                                                                                                   . . 384
Mach No. = 10.0
                                                                              Cone Angle =
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                                                                                                                                                                                                                                                                  . . 386
                                                                                                                                                         Angle of Attack =
                                                                                                                                             9° Angle of Attack = 9° Angle of
                                                                           Cone Angle =
Mach No. = 15.0
                                                                                                                                                                                                                                                                 . .388
                                                                             Cone Angle = 90 Angle of Attack = Cone Angle = 90 Angle of Attack =
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Angle of Attack = 10^{\circ}. .476
      Mach No. = 25.0 Cone Angle =
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7	Definition of Terms Used in Pressure Distribution Tables

# Symbols

a	sound speed, see equation (3)
b	body radius function, see Figure 1
C	bow shock function, see Figure 1
E,F,G	see equation (6a)
$\widetilde{\mathrm{E}}$ , $\widetilde{\mathrm{F}}$ , $\widetilde{\mathrm{G}}$	see equation (la)
h	enthalpy, see equation (3)
$H_{\infty}$	stagnation enthalpy, $\frac{\gamma}{\gamma-1}$ $(1 + \frac{\gamma-1}{2} M_{\infty}^2)$
L	axial distance from nose (same as z)
M <sup>-</sup>	Mach number
p	pressure
r	radial coordinate, body oriented cylindrical coordinates, see Figure 1
r <sup>1</sup>	radial coordinate, wind oriented cylindrical coordinates, see Figure 2
Rn, IN	sphere nose radius
S	surface length from sphere tip
$v$ ( $v_1, v_2$ ,	$U_3,U_4$ ) conservation vector, see equation (la)
u	velocity component in r direction
v	velocity component in $\phi$ direction
$v_n$	velocity component normal to bow shock
À	velocity component in z direction
X,Y,Z	transformed coordinated, see equation (5)
Z	axial coordinate, body oriented cylindrical coordinate (same as L), see Figure 1
zl	axial coordinate wind oriented cylindrical coordinates, see Figure 2
$^{\mathrm{z}}$ J	axial distance to sphere-cone juncture, see Figure 2
z <sub>o</sub>	axial station for start of supersonic calculation
α	angle of attack
Υ	ratio of specific heats
Δ	see Figure 2
$\Delta \mathbf{Z}$	step size
ΔΧ, ΔΥ	mesh size in X and Y directions, respectively
ф	angular coordinate, body oriented cylindrical coordinate, see Figure 1

## Symbols (Cont'd)

φ1	angular coordinate, wind oriented cylindrical coordinate, see Figure 2
ρ	density
δ	stability parameter, see equation (16)
θς	cone angle (cone half angle)

## Subscripts

 $^{\infty}$  indicates a free-stream quantity Independent variable used as subscript indicates partial differentiation with respect to that variable.

### Superscript

' indicates a predicted value or a function evaluated using predicted quantities

#### INTRODUCTION

The design of re-entry configurations requires a source for the aerodynamic performance characteristics used in predicting the ballistic trajectory. It has proven difficult to obtain such data on sphere cones at angle of attack in the open literature. Some data are available as the result of experimental investigations, and other data are available as the result of study contracts employing the method of characteristic or finite difference techniques to determine the pressure field on particular shapes. Early work by the Russians and subsequent modifications arranged in tabular form have proven most useful for trajectory calculation, heat-transfer calculations, etc.

This report gives, in tabular form, the inviscid surface pressure distributions and the aerodynamic characteristics for sphere-cones at angle of attack. The ranges of the tables are

$$0 \le \alpha \le 10^{\circ}$$
  
 $5^{\circ} \le \theta_{c} \le 20^{\circ}$   
 $3.5 \le M_{\infty} \le 30$   
perfect gas,  $\gamma = 1.4$ 

The term cone angle used herein refers to the angle between the surface of the cone and its axis of symmetry. This value is sometimes called the half-cone angle or semi-cone angle. The report is divided into two volumes; Volume I contains the tabulated surface pressure data, Volume II contains the aerodynamic data.

All the tabulated data presented in this report were obtained using an inviscid flow computer code developed at NAVSURFWPNCEN/WOL. A brief description of this code is included and some comparisons are made with experimental results (see Volume I). The arrangement of the tables (both Volumes) is described in the section "Using the Tables."

Tables of Supersonic Flow About Blunted Cones, Academy of Sciences, USSR (Moscow), prepared by P. I. Chushkin and W. P. Shuhshmina from: Computation Center Monogroph, 1961; translated and edited by J. F. Springfield, Research and Advanced Development Division, AVCO Corp., Wilmington, Mass., RAD-TM-62-63, Sep 1962

Pressure Distributions on Sphere Cones, D. M. Ellett, SC-RR-64-1796, Sandia Laboratory, Albuquerque, N. M., Jan 1965

<sup>&</sup>lt;sup>3</sup>Solomon, J. M., Ciment, M., and Ferguson, R. E., documentation in progress

#### BASIC CALCULATION PROCEDURE

### Governing Equations and Flow Regions

The flow-field computations are performed in a body oriented cylindrical coordinate system r,  $\phi$ , z illustrated in Figure 1. In these coordinates, the steady, inviscid flow equations can be written in the (weak) conservation form

$$\frac{\partial U}{\partial z} + \frac{\partial F}{\partial x} + \frac{\partial G}{\partial \phi} + \tilde{E} = 0 \tag{1}$$

where

$$U = \begin{pmatrix} U_1 \\ U_2 \\ U_3 \\ U_4 \end{pmatrix} = \begin{pmatrix} \rho w \\ p + \rho w^2 \\ \rho w u \\ \rho w v \end{pmatrix} \quad ; \quad \tilde{F} = \begin{pmatrix} \rho u \\ \rho w u \\ p + \rho u^2 \\ \rho v u \end{pmatrix} \quad ; \quad \tilde{G} = \frac{1}{r} \quad \begin{pmatrix} \rho v \\ \rho v w \\ \rho v u \\ p + \rho v^2 \end{pmatrix} \quad (1a)$$

$$\tilde{E} = \frac{1}{r} \begin{pmatrix} \rho u \\ \rho u w \\ \rho (u^2 - v^2) \\ 2\rho u v \end{pmatrix}$$

$$h + \frac{1}{2}(u^2 + v^2 + w^2) = H_{\infty}.$$
 (2)

In the above, p denotes pressure and  $\rho$  denotes density and u, v, w, are the velocity components along r,  $\phi$  and z, respectively. The equations of state for a perfect gas with constant specific heat implies that

$$h = \frac{a^2}{\gamma - 1} ; a^2 = \frac{\gamma p}{\rho}$$
 (3)

The basic flow variables  $\rho$ ,  $\rho$ , u, v, and w are related to the conservation variables  $U_1$ ,  $U_2$ ,  $U_3$  and  $U_4$  through the definitions, equation (la), and equations (2) and (3); i.e.,

$$w = \frac{\gamma}{\gamma+1} \frac{U_2}{U_1} + \sqrt{\left(\frac{\gamma}{\gamma+1} \frac{U_2}{U_1}\right)^2 - \frac{2(\gamma-1)}{\gamma+1} \left[H_{\infty} - \frac{\left(U_3^2 + U_4^2\right)}{2U_1^2}\right]}$$

$$\rho = U_1/w, \ p = U_2 - U_1w.$$
(4)

Throughout our discussion, all variables are nondimensionalized. All length variables are nondimensionalized by  $R_n$ , the nosetip radius; all velocities by  $\sqrt{p_{\infty}/\rho_{\infty}}$ ; pressure by  $p_{\infty}$ ; density by  $\rho_{\infty}$ ; and enthalpy by  $p_{\infty}/\rho_{\infty}$ .

The shock layer is bound by the given body surface, r=b  $(\phi,z)$ , and the unknown bow shock wave,  $r=c(\phi,z)$ . On the body surface, the normal component of velocity is zero. On the bow shock, the Rankine-Hugoniot relations hold. For the results presented herein, the flow is symmetrical about the meridianol planes  $\phi=0$  and  $\phi=\pi$ . These planes are taken as symmetry boundaries.

For computational purposes, the shock layer is divided into two separate regions (c.f., Fig. 1), the blunt body region near the nose-tip where the flow is transonic, and the supersonic region where the flow in the z direction is everywhere supersonic. The downstream limit of the blunt body region is taken as a plane  $z=z_0$  on which w is supersonic throughout the shock layer. The plane  $z=z_0$  is then used as the initial plane for the supersonic region calculation. This involves solving (from  $z=z_0$ ) a hyperbolic system in the time-like z direction by a marching procedure in the z direction.

### Blunt Body Solution and the Initial Plane

In all the computations presented in this report, the initial plane  $z=z_0$  can be chosen upstream of the sphere-cone juncture,  $z=z_J$ . The blunt body region is therefore a spherical flow which can be determined from the axially symmetric flow over the unit hemisphere in a wind oriented cylindrical coordinate system (r',  $\phi'$ , z'), (see Fig. 2). For the present results, the flow over the hemisphere in the wind oriented coordinates was obtained using the code described in Reference 4 run in an axially symmetric mode. The hemispherical flow field is determined up to z'=1. These results are then used to determine the initial plane and the three-dimensional flow in the body coordinates on the initial plane.

<sup>&</sup>lt;sup>4</sup>Rakich, John V., "A Method of Characteristics for Steady Three-Dimensional, Supersonic Flow with Application to Inclined Bodies of Revolution," NASA TN D-5341, Oct 1969

The initial plane,  $z=z_0$ , is determined in the following manner. The largest value of  $z_0$  such that the plane  $z=z_0$  lies completely to the left of z'=1 in the hemispherical shock layer is  $1-(1+\Delta)\sin\alpha$  (see Figure 1). Therefore, the largest value of  $z_0$  such that the flow on the plane  $z=z_0$  is determined by the flow on the hemisphere is

$$z_0 = \min (z_{ii}, 1 - (1 + \Delta)\sin \alpha).$$

It should be pointed out that the initial plane,  $z=z_0$  as determined above need not be an admissible initial plane since the velocity component w may not be everywhere supersonic on  $z=z_0$ . Before proceeding, the code automatically checks to see if w>a on  $z=z_0$  (this was always satisfied for the results presented here). The computed data from the code of Reference 4 is then transformed and interpolated onto the initial plane.

### Supersonic Region Solution

The flow in the shock layer downstream of  $z=z_0$  is such that w>a everywhere and, hence, the system (1) is of hyperbolic type with the z axis as the time-like direction. The calculation for  $z>z_0$  is performed by marching in the z direction step-wise starting at  $z=z_0$ . The procedure used is an explicit finite-difference method which "advances" the flow variables,  $\rho$ , w, u, v, p and the bow shock geometry c,  $\frac{\partial c}{\partial \overline{c}}$  and  $\frac{\partial c}{\partial \overline{c}}$  from a known station z

to a station  $z + \Delta z$ . The step size,  $\Delta z$ , is chosen to satisfy a stability criterion (given below). The calculation is repeated iteratively using the previous  $z + \Delta z$  as the known station until  $z > z_{end}$  where  $z_{end}$  is the desired body length (which is input).

A description of a general computational code for performing this type of calculation together with the rationale for its development will be presented at a later date. In this report only the specific procedures used in obtaining the present results will be described. This code is essentially the same as that described in Reference 5 with the exception of the procedures used at the wall boundary point.

In performing the actual computation, the shock layer for  $z \ge z_0$  is transformed into a cylinder  $z \ge z_0$ ,  $0 \le x \le 1$ ,  $0 \le y \le 1$  by means of the transformation

$$z = z,$$

$$x = \frac{r-b}{c-b},$$

$$Y = \phi/\pi$$
(5)

Kutler, P., W. A. Reinhart, and R. F. Warning, "Multi-Shocked Three-Dimensional Supersonic Flow Fields with Real Gas Effects," AIAA J., Vol. 11, No. 5, pp 637-664, May 1973

The equations of motion represented by the system of partial differential equations (1) transformed to the computational space (X, Y, Z) are

$$\frac{\partial U}{\partial Z} + \frac{\partial F}{\partial X} + \frac{\partial G}{\partial Y} + E = 0 \tag{6}$$

where

$$F = X_{\mathbf{z}}U + X_{\mathbf{r}}\tilde{F} + X_{\phi}\tilde{G}$$

$$G = \frac{1}{\pi}\tilde{G}$$

$$E = \tilde{E} - \left[ (\frac{b_{\mathbf{z}} - c_{\mathbf{z}}}{c - b})U + (\frac{b_{\phi} - c_{\phi}}{c - b})\tilde{G} \right]$$
(6a)

and

$$X_r = 1/(c-b), X_z = X_r [(X-1)b_z - Xc_z]$$
 (6b)

In the above, the body geometry functions b,  $\mathbf{b_z}$  , and  $\mathbf{b_{\varphi}}$  for a sphere-cone are:

$$b = \sqrt{1 - (z - 1)^{2}}, \quad b_{z} = (1 - z)/b; \quad 0 \le z \le z_{J}$$

$$b = \frac{1 - \sin\theta_{C}}{\cos\theta_{C}} + \tan\theta_{C}z, \quad b_{z} = \tan\theta_{C}; \quad z > z_{J}$$

$$z_{J} = 1 - \sin\theta_{C}$$

$$b_{\phi} = 0, \quad z \ge 0$$
(7)

The bow shock geometry functions c,  $c_z$ , and  $c_\phi$  are unknowns to be found in the calculation.

The system (6) is discretized and solved numerically in the computational space using a mesh defined by

$$\{(X_{i}, Y_{i}) : X_{i} = i\Delta X (i = 0, 1, \dots, I), Y_{j} = j\Delta Y (j = 0, 1, \dots, J)\}$$
 (8)

where  $\Delta X = 1/I$  and  $\Delta Y = 1/J$ . In Figure 3, we depict a typical discretized computational plane Z = constant and the corresponding physical plane Z = constant. As indicated in the figure, there are four types of points, each requiring differing numerical procedures. These are: interior points (i = 1, ``, N-1; j=1, ``J-1); boundary points at the symmetry planes Y = 0 and Y = 1 (j = 0 and J); boundary points at the bow shock, X = 1 (i = I); boundary points at the body surface, X = 0 (i = 0). At all points, the solution is advanced using predictor-corrector methods; i.e., the known solution at Z, say, is used to determine temporary, or predicted, values at Z +  $\Delta Z$ ; then the predicted values are used to determine the final solution (corrected values) at Z +  $\Delta Z$ .

In the following, the particular method used for each type of point will be described. Let us suppose that the the quantities  $\rho$ , u, v, w, p, c,  $\frac{\partial c}{\partial z}$  are known for  $Z=Z_n$  on the mesh defined by Equation (8). The objective is to determine these quantities on this mesh for  $Z=Z_{n+1}=Z_n+\Delta z$ .

The solution for all interior points is obtained by applying to Equation (6) a predictor-corrector second-order accurate finite difference scheme first given by MacCormack. 6

$$U'_{i,j} = U_{i,j}^{n} - \Delta Z \left[ \left( \frac{F_{i+1,j}^{n} - F_{i,j}^{n}}{\Delta X} \right) + \left( \frac{G_{i,j+1}^{n} - G_{i,j}^{n}}{\Delta Y} \right) + E_{i,j}^{n} \right]$$

$$U_{i,j}^{n+1} = \frac{1}{2} \left\{ U_{ij}^{n} + U_{ij}^{!} - \Delta z \left[ \left( \frac{F_{ij}^{!} - F_{i}^{!} - 1, j}{\Delta x} \right) \right] \right\}$$
 (predictor)

$$+ \left(\frac{G_{ij}'-G_{i,j-1}'}{\Delta Y}\right) + E_{ij}'$$
 (corrector) (9b)

In the above,  $U_{ij}^n = U(Z_n, X_i, Y_j)$ . The quantities  $F_{ij}^n$ ,  $G_{ij}^n$ ,  $E_{ij}^n$  are evaluated in accordance with (6a) at the point  $(Z_n, X_i, Y_j)$  using the known quantities  $\rho$ , u, v, w, p, c, and  $c_z$ . The quantity  $c_{\varphi}$  appearing in Equation (6a) is obtained in terms of c using the approximate formula

$$c_{\phi}(Y_{i},Z_{n}) = \frac{1}{\pi} c_{Y}(Y_{i},Z_{n}) = \frac{c(Y_{i+1},Z_{n}) - c(Y_{i-1},Z_{n})}{2\pi\Lambda Y}$$
(10)

The quantities  $U_{ij}^!$  are the predicted values of U at  $(Z_n + \Delta Z, X_i, Y_j)$  from which predicted values of the flow quantities  $\rho$ , u, v, w, p can be determined using Equation (4). The quantities  $F_{ij}^!$ ,  $G_{ij}^!$ ,  $E_{ij}^!$  are evaluated (see Eq. (6a)) at the points  $(Z_n + \Delta Z, X_i, Y_j)$  using the predicted values of  $\rho$ , u, v, w, p, the predicted value of  $c_Z$  and the corrected values of c and  $c_{\varphi}$  obtained from the corrected values of c using Equation (10). The predictor and corrector for c and  $c_Z$  will be described in the discussion of the bow shock points which follows.

<sup>&</sup>lt;sup>6</sup>MacCormack, R. W., "The Effects of Viscosity in Hypervelocity Impact Cratering," AIAA Paper 69-354, 1969

The numerical treatment of the points on the bow shock wave (corresponding to X = 1) follows closely the procedure suggested by Thomas, et al,. At the bow shock wave the Rankine-Hugoniot shock relations are applied. The form of these used in the present calculations are:

$$V_{n_{\infty}}^{2} = \frac{\gamma+1}{2} (p + \frac{\gamma-1}{\gamma+1})$$

$$\rho = \frac{V_{n_{\infty}}^{2}}{V_{n_{\infty}}^{2} - p + 1}$$

$$c_{z} = \frac{w_{\omega}(u_{\omega}-v_{\omega}\frac{c_{\phi}}{c}) + V_{n_{\omega}}\sqrt{(u_{\omega}-v_{\omega}\frac{c_{\phi}}{c})^{2} + (w_{\omega}^{2} - V_{n_{\omega}}^{2}) \left[1 - (\frac{c_{\phi}}{c})^{2}\right]}}{w_{\omega}^{2} - V_{n_{\omega}}^{2}}$$

$$u = u_{\omega} + \frac{V_{n_{\omega}}(1 - \frac{1}{\rho})}{\sqrt{1+c_{z}^{2} + (c_{\phi}/c)^{2}}}$$

$$w = w_{\omega} - (u-u_{\omega})c_{z}$$

$$v = v_{\omega} - (u-u_{\omega})\frac{c}{c}$$
(11)

In the above,  $V_{n_\infty}$  is the freestream velocity component normal to the shock and  $u_\infty$ ,  $v_\infty$ ,  $w_\infty$  are the freestream velocity components given by  $-V_\infty \sin\alpha$   $\cos\phi$ ,  $V_\infty \sin\alpha$   $\sin\phi$ , and  $V_\infty \cos\alpha$ , respectively. Note that Equations (11) give  $\rho$ , u, w, v, and  $c_z$  in terms of p and p. The quantity p is always defined in terms of p using the approximate formula given by Equation (10).

The predictor sequence for the shock points consists of the following. The shock shape, c, is predicted at  $Z_n + \Delta Z$  using

$$c_{j}^{i} = c_{j}^{n} + \Delta z (c_{z})_{j}^{n}$$

where  $c_{j}^{n}$  and  $(c_{z})_{j}^{n}$  are known values of c and  $c_{z}$  at  $(z_{n}, Y_{j})$ , respectively.

The predictor sequence for the shock points consists of the following. Temporary (not predicted) values of the conservation

<sup>7</sup>Thomas, P. D., M. Vinokier, R. A. Bostianon, and R. J. Conti, "Numerical Solutions for Three-Dimensional Inviscid Supersonic Flow," AIAA Journal, Vol. 10, No. 7, pp 887-894, July 1972

variables U are computed using Equation (9a) (with i=I) where  $\begin{pmatrix} F_{I+1,j}^n - F_{I,j}^n \end{pmatrix}$  is replaced by  $\begin{pmatrix} F_{I,j}^n - F_{I-1,j}^n \end{pmatrix}$ .

The predicted value of pressure is then obtained using Equation (4). Predicted values of  $\rho$ , u, v, w, and c are then defined using the predicted values of  $\rho$  and c in Equation (11). The predicted values of the conservation vector U are then obtained using the definition, Equation (1a).

Using the predicted value of  $c_Z$  at  $z_n$  +  $\Delta z$ ,  $c_Z^\prime$ , the corrected shock shape is obtained using

$$c_{j}^{n+1} = \frac{1}{2} \left[ c_{j}^{n} + c_{j}' + \Delta z (c_{z}')_{j} \right].$$

Corrected values of  $c_\varphi$  are then obtained using Equation (10). The corrected values of c and  $c_\varphi$  are obtained before the corrector sequence is performed at all points so that the corrected values of c and  $c_\varphi$  are used in the corrector sequence at all points. The remainder of the corrector sequence for shock points is essentially the same as the predictor for these points except that predicted values of the flow variables are used (corrected values of  $c_r$  and  $c_\varphi$ ) and instead of Equation (9a), Equation (9b) is used.

At the body surface (corresponding to X = 0), the component of velocity negmal to the surface must vanish; i.e.,

$$\dot{\mathbf{u}} = \mathbf{b}_{\mathbf{z}} \mathbf{w} + \frac{\mathbf{b}\phi}{\mathbf{b}} \mathbf{v}. \tag{12}$$

For the computations presented herein, two different numerical techniques for the wall boundary points have been employed.

Method 1: In this approach, the conservation quantities  $U_1, U_2, U_4$  (c.f., Eq. (1a)) are advanced using the predictor-corrector sequence given by Equation (9a) and (9b), (with i=0), except in the corrector the difference  $F_{0j}^i - F_{-1,j}^i$  is replaced by  $F_{1,j}^i - F_{0,j}^i$ . After both the predictor and corrector, the flow quantities  $\rho$ , w, u, v, and  $\rho$  are obtained using Equations (12), (2) and (3) and the definitions of  $U_1$ ,  $U_2$ , and  $U_4$  (see Eq. (1a); the final formulas for an axially symmetric body ( $b_0 = 0$ ) are:

$$v = U_4/U_1$$

$$w = \begin{bmatrix} \gamma \left( \frac{U_2}{U_1} \right) + \sqrt{\gamma^2 \left( \frac{U_2}{U_1} \right)^2 - 2(\gamma - 1) \left[ \gamma + 1 - (\gamma - 1) b_3^2 \right] \left[ H_{\infty} - \frac{1}{2} \left( \frac{U_4}{U_1} \right)^2 \right]} \right] / (\gamma + 1 - (\gamma - 1) b_z^2)$$

$$\rho = U_1/w, \ \rho = U_2 - U_1 w, \ u = b_z w$$

Method 2: In this approach a system of auxilliary equations which are valid only at the wall are used for the computation of the wall points. One equation is a characteristic compatibility relation corresponding to a bicharacteristic ray pointing into the flow from the wall point under consideration. This equation for a symmetric body  $(b_0 \equiv 0)$  is:

$$P_{Z} = \lambda \left\{ x_{r} p_{X} - \frac{1}{\beta} \left[ \frac{vw}{\pi r a^{2}} p_{Y} + \rho x_{r} w (u_{X} - b_{z} w_{X} + \frac{1}{\pi b} (wv_{Y} - vw_{Y}) + \frac{wu}{b} \right] \right\}$$

$$- \frac{\rho}{\beta} (w^{2} b_{zz} - \frac{v^{2}}{b})$$
(13)

where

$$\beta = \sqrt{\frac{w^2 + u^2 - a^2}{a^2}}, \quad \lambda = \frac{a^2 (\beta - b_z)}{w^2 - a^2}$$

The other equations are characteristic compatibility relations corresponding to the wall streamlines; these are:

$$p\rho^{-\gamma} = constant$$
 (14)

(i.e., entropy is constant on the body surface) and (for  $b_{\phi}=0$ )

$$v_{Z} = -\frac{1}{\pi b w} \left( \frac{1}{\rho} p_{Y} + v v_{Y} \right) = \frac{1}{b} \frac{v u}{w}$$
 (15)

The quantities p and v at the wall are advanced in a predictor-corrector manner. For example, p is advanced using

$$p_{j}' = p_{j}^{n} + \Delta z (p_{z})_{j}^{n}$$

$$p_{j}^{n+1} = \frac{1}{2} [p_{j}^{n} + p_{j}' + \Delta z (p_{z}')_{j}]$$

In the above,  $(p_z)^n$  is the right-hand side of Equation (13) evaluated at the point  $(z_n^z)^j$ , where the partial derivatives with respect to Y and X are replaced by

$$(\frac{\partial}{\partial Y})_{j}^{n} = \frac{()_{0,j+1}^{n} - ()_{0,j}^{n}}{\Delta Y}$$
 and  $(\frac{\partial}{\partial X})_{j}^{n} = \frac{()_{1,j}^{n} - ()_{0,j}^{n}}{\Delta X}$ 

respectively. The quantity  $(p_Z')_j$  is the right-hand side of Equation (13) evaluated at  $(z_{n+1}, 0, y_j)$  using predicted values of the flow variables with

$$(\frac{\partial !}{\partial Y})_{j} = \frac{(!)_{C,j} - (!)_{O,j-1}}{\Delta Y}$$
 and  $(\frac{\partial !}{\partial X})_{j} = \frac{(!)_{1,j}(!)_{O,j}}{\Delta X}$ 

The quantity v is advanced similarly using Equation (15). In both the predictor and corrector steps the other flow variables at the wall are obtained from Equations (14), (2), (3), and (12). The final formulas for an axially symmetric body ( $b\phi \equiv 0$ ) are

final formulas for an axially symmetric body (b\$\phi=0\$) are 
$$0 = c_0 p^{1/\gamma}$$
,  $c_0 = (p^{\gamma}/p)$  at stagnation point  $q^2 = u^2 + w^2 + v^2 = 2(H_{\infty} - \frac{\gamma}{\gamma-1} - \frac{p}{0})$ 

$$w = \frac{q}{\sqrt{1 + b_z^2}}, \quad u = b_z w$$

Each of the above methods has advantages and disadvantages in certain situations. Method I works well in the region of leeside compression on slender cones; however, it exhibits oscillations near the sphere-cone juncture. Method 2, on the other hand, is satisfactory near the sphere-cone juncture but exhibits poor behavior on the leeside of slender cones. Method 2 retains the correct inviscid wall entropy and hence results using this method show the downstream development of discontinuities at the wall in some of the flow variables, a phenomenon which is characteristic of the wall entropy layer on blunted bodies. Method I does not retain the proper wall entropy and the entropy layer is "smoothed out" as the calculation proceeds downstream. Except for the regions indicated above, the computed wall pressures using the two methods are in close agreement.

In order to exploit the advantages of both methods, most of the results presented here were obtained using a combination of both methods; vis., Method 2 was used past the sphere-cone juncture up to Z=2; Method 1 was used for the remainder of the calculation. This procedure was used for all calculations except the  $20^{\circ}$  cones where Method 2 was used for the whole calculation.

The procedures given above for wall, interior, and shock points must be slightly modified at the symmetry planes Y = 0 and Y = 1 (y = 0) and y = 1, respectively since some of the differences in the Y direction require the flow variables at  $y = -\Delta y$  ( $y = -\Delta y$ ) and  $y = 1 + \Delta y$  ( $y = 1 + \Delta y$ ). The required quantities are obtained using symmetry conditions; e.g.,

$$u(Z,X,-\Delta Y) = u(Z,X,\Delta Y)$$

$$v(Z,X,-\Delta Y) = -v(Z,X,\Delta Y)$$

$$w(Z,X,-\Delta Y) = w(Z,X,\Delta Y)$$

$$p(Z,X,-\Delta Y) = p(Z,X,\Delta Y)$$

$$\rho(Z,X,-\Delta Y) = \rho(Z,X,\Delta Y)$$

with similar expressions across Y = 1.

The step size is chosen in accordance with the CFL condition (which is a necessary condition for numerical stability). This condition is that the domain of dependence of the partial differential equations must be contained in the domain of dependence of the finite difference equations at all points. This condition can be written as

$$\Delta Z \leq \Delta X \min \left\{ \frac{1}{G} \right\}$$
 (16)

where the minimum is taken over all computational points. At each point  $\sigma$  is defined by:

$$\sigma = \max(\sigma_1, \sigma_2, \sigma_3)$$

where

$$\sigma_1 = \{ |x_2\eta + w\xi| + a \sqrt{(x_r^2 + x_{\phi}^2 \frac{1}{r^2}) \eta + \xi^2} \} / \eta$$

$$\sigma_2 = (\frac{\Delta X}{\Delta Y}) (\frac{1}{\pi r}) (|wv| + \sqrt{\eta + v^2}) / \eta$$

$$\sigma_{3} = \{ |X_{z}\eta + w\xi_{1}| + a\sqrt{\left[X_{r}^{2} + (X_{\phi}^{2} + \frac{\Delta X^{2}}{\pi^{2}\Delta Y^{2}}) \frac{1}{r^{2}}\right]\eta + \xi_{1}^{2}} / \eta$$

and

$$\eta = w^2 - a^2$$
,  $\xi = X_r u + X_{\phi} \frac{v}{r}$ ,  $\xi_1 = \xi + \frac{\Delta X}{\pi \Delta Y} (\frac{v}{r})$ 

in the actual calculations, the right-hand side of (16) is evaluated at the station  $Z_n$  and  $\Delta Z$  is taken as .9 of this value.

### COMPARISON WITH EXPERIMENTAL DATA

In order to validate the present pressure prediction capability numerous comparisons were made with experimentally determined values and other predictive schemes where possible. Data typical of the excellent agreement generally noted with experimental results are given in Figures 4, 5, and 6. Comparisons are first made for a seven-degree sphere cone at Mach numbers equal to five at angles of attack equal to zero degrees and five degrees. These data were obtained in the Naval Surface Weapons Center Hypersonic Tunnel. Further comparisons are made for a nine-degree cone at Mach numbers equal to five at angles of attack equal to four degrees, ten degrees and fourteen and a half degrees. These data were obtained from tests conducted at Arnold Engineering Development Center.

AVCO Government Products Group, Street-A III, Vol. III, "Three-Dimensional Inviscid Flow Field Analysis of Aerodynamic Trim," August 1973

#### USING THE TABLES: SURFACE PRESSURE DISTRIBUTIONS

The pressure tables are divided into two parts; first, surface pressure distributions on the sphere alone are presented. As these data are independent of the cone angle, the sphere tables are divided according to angle of attack and then subdivided according to Mach number. Next, the surface pressure distributions on the cone are presented. These data are divided according to angle of attack and then subdivided according to cone angle and then according to Mach number. Angles of attack of 0°, 1°, 3°, 5°, and  $10^{\circ}$  are considered over a Mach number range of 3.5, 5.0, 10.0, 15.0, 20.0, 25.0, and 30.0. Cone angles of  $5^{\circ}$ ,  $6^{\circ}$ ,  $7^{\circ}$ ,  $8^{\circ}$ ,  $9^{\circ}$ , 10°, 15°, and 20° are utilized. Each table is headed by the appropriate Mach number, cone angle or sphere, and angle of attack. The surface pressure distributions are then presented at plane angles of 00, 300, 60°, 90°, 120°, 150°, and 180°, measured from windward to leeward meridian as a function of  $L/R_N$  and  $S/R_N$ . (See Fig. 7). L is the axial position measured from the sphere tip,  $R_N$  is the nosetip or sphere radius. S is the actual surface length measured from the sphere tip over the sphere and cone. At zero degrees angle of attack the pressure distribution along all meridians are equal at each axial or surface station, thus only one meridian plane value is present at each station for the zero angle-of-attack case. Calculations on the sphere are presented until  $^{\rm L}/\rm R_N$  = 1.00 and on the cone until  $L/R_N \approx 200$ .

# NSHC/HOL/TR 75-45

SPHTRE

ANGLE OF ATTACK = 0.00

	2 / P FREE-STREAM AT MACH NO.									
FYSA	3.5	5.7		15.0	23.0	25.0	30.0	SZRN		
6.936	16.24	32.65	129.23	290.18	515.53	A 05-34	1159.48	.000		
. 325	15.37	3 90	121.61	272.97	484.89	757.52	1099.61	.224		
.051	14.54	29.17	144.33	255.48	455.50	711.55	1024.40	.318		
375	13.73	27.34	127.36	240.73	427.42	557.64	951.13	<b>.</b> 390		
.100	12.97	25.73	195.72	225.73	460.71	625.91	931-01	<b>.</b> 45 1		
.125	12.24	24.19	94.43	211.49	375.30	556.13	843-67	-505		
.150	11.53	22.74	98.45	197.94	351-13	548.25	759.07	•555		
.175	13.96	21, 14	82.77	185.15	328.28	512.53	737.57	.651		
.200	1:.21	21	77.4(	172.99	366.45	478.33	688.26	.644		
. 225	មា្ន-គ.ម	12.74	72.27	161. *6	285.91	446.13	641.81	-684		
.250	R.91	17.52	67.32	152.26	267.42	417.03	594.96	.723		
.275	8.39	1:f 3 G	52.46	139.28	246.91	305.23	554.32	.760		
.331	<b>4</b> :• . 3	15. 1	58.18	129.56	223.50	357.99	545.61	.795		
.325	7.48	14.29	54. 6	120.30	213.01	332.20	477.86	<b>.83</b> 0		
350	7•0	13.32	53.22	111.58	197.47	397.92	442.89	<b>.</b> -86,3		
.375	5.,55	12.41	46.55	197.75	182.87	2.85.1 C	410.06	<b>₽</b> 896		
40)	5.15	11.50	43.11	95.53	169.16	253.58	379.22	• 927		
.425	ā.75	17.75	39.89	88.45	156.31	243.61	35 . 31	<u>• 9</u> 58		
÷45 °	5.37	9.39	36.88	81.63	144.27	224.81	32*.25	÷ 98 8		
.475	5∞ 72	9-27	34.55	75. <b>.</b> 29	133.12	237.24	297.95	1=018		
.533	4:.58	8-65	强. 41	59.37	122.52	190-83	274.34	1047		
-525	4-07 F	7.97	29.94	63. <sub>•</sub> 85	112.72	175.54	252.32	1.076		
.550	4.56	7.3A	26.64	58.75	173.58	151.28	231.80	1-104		
<u>.575</u>	7.78	6.82	24.58	5∄., 9€	95:438	148.00	212.70	1.132		
<b>.5</b> 60	3.01	6.30	22.50	49.44	₽₹.17	175.67		1.159		
.625	3.26	5.82	22.64	45-30	79:43	134.22	178-49	1.186		
-+653	3.03	5.36	18.91	44.46	73.03	113.61	163.22	1 21 3		
.675	2.31	+.34	17.31	37.90	€5.•72	133:478	149.18	1240		
<b>-7</b> 33	2.50	4-654	15 -82	34:060	€ÿ.99	94.69		1.266		
.725	2.40	4., 17	14.45	31.55	55.50	86.28		1.292		
75 G	2.27	3.43	13-18	2873	£3.52	78.52	112.75	1. <sub>2</sub> 318		
<b>-</b> 775	2.15	₹.51	1.2 • C C	26.13	45.92	7136		1344		
• <b>43</b> 0	1.89	3.21	11.92	23.74	41.69	54.76	9296	1369		
+825	1.74	2.94	9.91	21.•53	37.79	58.79	84.24	1395		
. 853	1.00	2.58	9-99	19.50	34.20	53.11	7-6 - 23	1.420		
. 875	1=+7	2.45	9.14	17.53	70.91	4799	6-385	1.445		
.311	1.35	2.23	7.36	15.92	27.39	43.29		1:-471		
.925	1.024	₹.02	5.54	14. 54	25-12	38.99		1:-496		
. 95 O	. 1 1 3	1-, 34	5. <u>,</u> 0.8	12.90	22.58	35.03		1.521		
.975	1.003	1.67	Ē.38	11.59	20.27	31.42		1.546		
1-6-000	.94	1.51	4.0 凡芍	1€.41	18.20	28.16	43:-45	1-571		

# NSHC/HOL/TR 75-45

			SPHE	ng	ANGL	ACK = 1	1.00		
MACH	NO = 3	3.50	SPHE	KC					
		P / P	FREE-STR	FAM AT	PLANE	angles	4.00	S/RN	
	_	• -	60.	90•	120.	150•	180 -	37 KII	
L/RN	0•	30•	80.	,,,				.000	
		45 06	16.24	16.24	16.24	16.24	16.24	.224	
0.000	16.24	16.24	15.43	15.37	15.30	15.25	15.23	.318	
.025	15.50	15.48	14.62	14.53	14.44	14.38	14.35	.390	
.050	14.71	14.69	13.83	13.73	13.62	13.55	13.52	.451	
.075	13.94	13.91	13.08	12.97	12.85	12.77	12.74	.505	
.100	13.19	13.16	12.36	12.24	12.11	12.03	11.99	•505 •555	
.125	12.48	12.45		11.53	11.41	11.31	11.28	.601	
.150	11.79	11.75	11.66	10.86	10.73	10.64	10.60	.644	
.175	11.12	11.09	10.99	10.21	10.07	9.97	9.94		
.200	10.48	10-44	10.34	9.57	9.44	9.34	9.30	.684	
.225	9.85	9.81	9.71	8.91	8.72	8.60	8.57	.723	
.250	9.24	9.20	9.10	8.40	8.43	8.39	8.37	.760	
.275	8.53	8.50	8.43	8.02	7.88	7.78	7.74	.795	
.300	8.36	8.32	8.19		7.35	7.26	7.23	.830	
.325	7.75	7.71	7.61	7.48	6.87	6.78	6.75	.863	
.350	7.25	7.21	7.12	7.00	6.44	6.36	6.33	.896	
.375	6.78	6.75	6.66	6.55	6.04	5.95	5.92	.927	
.400	6.37	6.34	6.26	6.15	5.64	5.56	5.53	.958	
.425	5.98	5.95	5.86	5.75	5.27	5.19	5.16	.988	
.450	5.59	5.56	5.48	5.37	4.91	4.84	4.81	1.018	
•475	5.23	5.20	5.12	5.02	4.58	4.51	4.48	1.047	
•479	4.88	4.85	4.78	4.68	4.27	4.20	4.17	1.076	
•525	4.55	4.53	4.46	4.36	3.97	3.91	3.88	1.104	
	4.25	4.22	4.15	4.06		3.63	3.61	1.132	
.550	3.96	3.93	3.87	3.78	3.69	3.37	3.35	1.159	
.575	3.68	3.66	3.60	3.51	3.43	3.13	3.11	1.186	
.600	3.42		3.34	3.26	3.19	2.90	2.88	1.213	
.625	3.18		3.10	3.03	2.95	2.69	2.67	1.240	
.650	2.95		2.88	2.81	2.74	2.49	2.47	1.266	
.675	2.74		2.67	2.60	2.53	2.30	2.28	1.292	
.700	2.53		2.47	2.40	2.34	2.12	2.11	1.318	
<b>"725</b>	2.34		2.28	2.22	2.16	1.96		1.344	
.750	2.17	·	2.11	2.05	2.00	1.80	1.79	1.369	
.775	5.00		1.95	1.89	1.84	1.66		1,395	
.800				1.74	1.69			1.420	
2825	1.84			1.60	1.56			1.445	
.850	1.70			1.47				1.471	
-875	1.50	• • • •		1.35		1.28		1.496	
.900	1.4			1.24		1.17		1.521	
•925				1.13				1.546	
•950				1.03					
•975					92	.89	• • • • • • • • • • • • • • • • • • • •		
1.000	1.0	Y Tèm.	•						

MA	CH NO =	5.00	SP	HERE	ANG	LE OF AT	TACK =	1.00
		D /- D	EDEE_C	TREAM AT	PLANE	ANGLES		
L/RN	0.	30.	60.	90 •	120 ·		4.00	SZRN
LIKN	0.	30 •	00 e	70 •	120 •	170.	180.	21KI
0.000	32.64	32.64	32.64	32.64	32.64	32.64	32.64	.000
,025	31.07	31.03	30.93	30.79	30.65	30.55	30.51	.224
.050	29.40	29.35	29.21	29.02	28.83	28.69	28.64	.318
•075	27.77	27.71	27.55	27.33	27.11	26.95	26.89	•390
-100	26.20	26.13	25.96	25.72	25.48	25.31	25.24	.451
•125	24.70	24.63	24.44	24.18	23.93	23.75	23.68	•505
.150	23.26	23.19	22.99	22.73	22.47	22.27		• 555
.175	21.87	21.80		21.33		20.88	20.80	.601
-200	20.56	20.45	20.28	20.00	19.73	19.54	19.46	-644
•225	19.29	19.21	19.01	18.73	18.46	18.26	18.19	.684
.250	18.07	17.99	17.79	17.52	17.25	17.06	16.99	•723
•275	16.92	16.85	16.65	16.39	16.12	15.93	15.86	•760
•300	15.83	15.75	15.57	15.30	15.04	14.85	14.79	•795
•325	14.80	14.73	14.54	14.28	14.03	13.84	13.78	•830
•350	13.82	13.75	13.57	13,32	13.87	12.89	1.2.83	.863
•375	12.90	12.83	12.65	12.41	12.17	12.00	11.94	•896
•400	12.02	11.96	11.79	11.55	11.32	11.16	11.10	•927
•425	11.20	11.14	10.97	10.74	10.52	10.36	10.30	• 958
•450	10.42	10.36	10.20		9.77	9.62	9.56	• 988
•475	9.69		9.48	9.27		8.92	8.86	1.018
•500	9.00		8.80	8.60	8.40	8.26	8.21	1.047
•525	8.35		8.16	7.97		7.65	7.60	1.076
•550	7.74	7.69		7.37		70-7		1.104
•575	7.17			6.82		6.53		1.132
•600	6.63	6.58		6.30		6.03		
•625	6.12		5.97			5.56		
•650	5.65		5.51	5.36		5.12		1.213
•675	5.21			4.94		4.71		
•700	4.80	4.77		4.54		4.33		1.266
•725	4.42			4.17		3.97		1.292
•750	4.06	4.03	3.94	3.83		3.64		1.318
•775	3.73	3.70	3.62	3.51	3.41	3.33		1.344
.800	3.42	3.39	3.31	3.21	3.12		3.02	1.369
.825	3.13	3.1:0	3.03	2.94	2.85	2.78	2.76	1.395
-850	2.86	2 • 8-3	2.77	2.68	2.60	2.54	2.52	1.420
•875 000	2.61	2.59	2.53	2.45	2.37	2.31	2.29	1.445
•900	2.38	2.36	2.30	2.23	2.16	2.10	2.09	1.471
•925	2.16	2.15	2.09	2.02	1.96	1.91	1.89	1.496
•951)	1.97	1.95	1.90	1.84	1.78	1.73	1.72	1.521
•975	1.78	1.77	1.72	1.67	1.61	1.57	1.56	1.546
1.000	1.62	1.60	1.56	1.51	1.46	1.42	1.41	1.571

	MACH NO =	10.00	SP	HERE	ANO	GLE OF	ATTACK =	1.00
		<b>D</b> /	P FREE-S	TOFAM A	T PLANE	ANGLE	-	
L/R	N 0.	30.				150 •		CADM
L/K	N U•	30•	60•	90.	120•	150•	180.	S/RN
0.00	0 129.18	129.18	129.18	129.18	129,18	129.18	129.18	.000
.02	5 122.73	122.57	122.15	121.57	120.99	120.57	120.41	.224
.05	0 115.83	115.62	115.04	114.26	113.49	112.93	112.72	•318
.07	5 109.13	108.89	108.22	107.32	106.42	105.77	105.53	•390
.10	0 102.67	102.40	101.67	100.68	9.70	98.99	98.74	
•12	5 96.49	96.21	95 • 44	94.40	93.36	92.51	92.34	•505
•15	90.58	90.28	89.49	88.42	87.36	86.59	86.31	• 555
.17	5 84.97	84.67	83.85	82.74	81.65	80.87	80.58	•601
.20	79.59	79.29	78.48	77.37	76.28	75.48	75.19	.644
	5 74.47				71.19			
•25					66.11			
•27					61.41			
-30			59.22		57.12			
.32				54.07			52.05	
•35		51.95	51.21	50.21	49.21	48.49	48.23	.863
•37				46.54	45.57		44.63 41.28 38.13	-896
-40		44.73	44.03	43.10	42.18	41.52	41.28	.927
-42		41.45	40.78	39.88	39.00	38.36	38.13	.958
.45		38.36	37.72	36.87	36.02	35.42	35.20	- 988
-47		35.47	34.86	34.04	33.24	32.66	32.45	1.018
•50			32.18	31.40	30.64	30.09	29.89	
	5 30.43				28.21			
•55	0 28.05	27.86	27.34	26.64	25.95	25.46	25 • 28	
•57					23.84			
.60		23.58			21.88			
.62		21.66			20.06			
	0 20.02				18.37			
	5 18.35				16.80			
.70					15.35			
	5 15.36	15.23			1-4-01			
.75					12.77			
.77					11.62			
-80		11.55		10.91	10.56	10.31		
.82		10.50	10.25	9.91	9.59	9.36		1.395
.85		9.53	9.30	8.99	8.69	8.47		1.420
- 87		8.64	8.43	8.14	7.86	7.67		1.445
•90		7.82	7.63	7.36	7.11	6.92		1.471
•92		7.07	6.89	6.64	6.41	6.24		1.496
• 95		6.37	6.21	5.98	5.77	5.61		1.521
- 97		5.74	5.59	5.38	5.19	5.05		1.546
1.00		5.16	5.03	4.85	4.67	4.55		1.571
					,		• • • •	

*	ACH NO =	15.00	SP	HERE	ANG	GLE OF	ATTACK =	1.00
		<b>D</b> /	P FREE-S	TOFAM	AT PLANE	ANGLE	c	
L/RN	0.	30.		90.	120.	150.		C/DN
LIKI	U •	30 •	60 a	70•	120•	120 •	100.	S/RN
0.000	290.09	290.09	290.09	290.09	290.09	290.09	290.09	.000
.025	275.50	275.15	274.19	272.87	271.57	270.62		.224
.050			258.15	256.38		253.34		.318
.075		244.19	242.69	240.65	238.62	237.14		•390
.100		229.53	227.88	225.65	223.43	221.81		.451
.125		215.49		211.42	209.09	207.39		•505
•150		202.11	200.31	197.87	195.46	193.71		•555
.175		189.37	187.56	185.09		180.83		•601
.200		177.20	175.34	172.83	170.37	168.58		.644
.225		165.63	163.79	161.30	158.84	157.06		.684
.250		154.66	153.88	152.21	149.60	147.08		•723
.275		143.64	141.60	139.23	136.87	135.14		•760
-300		133.67	131.90	129.52	127.16	125.46		•795
•325		124.33	122.60	120.27	117.97	116.31		.830
.35.0		115.49	113.81	111.55	109.32	107.70		.863
•375			105.51	103.32	101-17	99.62	-	•896
•400			97.71	95.61	93.54	92.05		•927
.425			90.39	88.438	86.40	84.97		-958
•45 D			83.53	81.61	79.72	78.35		•988
.475			77.11	75.27		72.18		1.018
.500		72.40	71.10	69.36	67.65	66.42		1.047
•525			65.49	63.83		61.05		1.076
•550			60.25	58.69		56.06		1.104
•575		56.47	55.37	53.89		51.41		1.132
.600	-		50.82	49.43		47.10		1.159
.625		47.57	46.60	45 - 29		43.10		1.186
•650			42.67	41.45	40.25	39.40		1.213
•675	=	39.89	39.03	37.89		35.97		1.213
.700		36.46	35.66	34.59				
•725				_		32.81		1.266
•750		33.29 30.35	32.54	31-55	30•58 27•83	29.88		1.292
• 7-75			29.66 26.99	28.73 26.13		27.18 24.69		1.318
.800					25.29			1.344
			24.53	23.73	22.96	22.40		1.369
-825		22.82	22.26	21.53	20.81	20.30	20.11	1.395
.850		20.69	20.18	19.50	18.83	18.36	_	1.420
-875		18.73	18.26	17.63	17.02	16.58	16.43	1.445
•900			16.50	15.92	15.35	14.95	14.81	1.471
•925		15.27	14.87	14.34	13.82	13.46	13.32	1.496
•950		13.75	13.39	12.90	12.43	12.09	11.97	1.521
•975		12.36	12.03	11.59	11.16	10.86	10-75	1.546
1.000	11.22	11.11	10.81	10.41	10.03	9.76	9.66	1.571

MA	CH NO =	20.00	SP	HERE	AN	GLE OF	ATTACK =	1.00
		P /	P FREE-S	TREAM A	T PLANE	ANGLE	s	
L/RN	0.	30.	60.	90.	120.	150.		S/RN
671/11	•		000	,,,,	2200	2,500	2000	• • • • • • • • • • • • • • • • • • • •
0.000	515.36	515.36	515.36	515.36	515.36	515.36	515.36	.008
.025	489.39	488.76	487.04	484.71	482.38	480.69		.224
•050	461.62	460.78	458.47	455.33	452.21	449.93		.318
.075	434.56	433.58	430.90	427.27	423.66	421.03		.390
.100	408.57	407.49	404.55	400.57	396.61	393.72		•451
.125	383.58	382.44	379.36	375.17	371.01	367.98		•505
.150	359.76	358.58	355.36	351.01	346.70	343.58		•555
.175	337.03	335.83	332.58	328.17	323.78	320.57	319.41	.601
.200	315.32	314.10	310.79	306.35	301.97	298.78		.644
•225	294.74	293.52	290.21	285.71	281.27	278.06		.684
.250	274.98	274.04	271.43	2.67.34	262.63	258.80	257.32	•723
•275	255.78	254.37	251.13	246.83	242.57	239.48		.760
.300	238.00	236.84	233.68	229.43	225.23	222.19		•795
•525	221.31	220.18	217.09	212.94	208.85	205.90		.830
• 350	205.53	204.43		197•41	193.45	190.59		.863
•375	190.66	189.59		182.82	178.99	176.24		• 8.96
·400	176.66			169.11	165.44	162.79		• 927
.425	163.50	162.52	159.85	156.27	1.52.75	150.21		• 95.8
• 450	151.15		147.66	144.24	140.88	138.46		.988
•475	139.58	138.68	136.25	132.99	129.79	127.49		1.018
•500	128.75	127.89		122.49	119.45	117.27		1.047
•525	118.63	117.82		112.69	109.81	107.75		1.076
•550	109.17	108-41	106.33	103.56	100.84	98.89		1.104
.575	100.36	99.63	97.67	95.05	92.49	90.66		1.132
.600	92.14	91.46	89.62	87.15	84.75	83.02		1.159
.625	84.50	83.86	82-13	79.82	77.56	75.94		1.186
•650	77.40	76.80	75.18	73.01	70.90	69.39 63.32		1.213 1.240
•675	70.82	70.26	68.74	66.71	64.74	57.72		1.266
•700	64.71	64.19 58.57	62•77 57•25	60.88 55.49	59•04 53•77	52.55		1.292
•725	59.06 53.83		52.15	50.51	48.91	47.78		1.318
•750 •775	49.00	48.58	47.44	45.92	44.44	43.38		
• 7 7 9 • 8.0.0	44.54	44.15	43.09	41.68	40.31	39.33		1.369
• 8.0.u.	40.43	40-07	39.09	37.78	36.52	35.62		1.395
•850	36.64	36.31	35.40	34.20	33.93	32.20		1.420
•875	33.16	32.85	32.01	30.91	29.84	29.07		1.445
900	29.96	29.68	28.91	27.89	26.90	26.19		1.471
•925	27.02	26.76	26.05	25.11	24.21	23.56		1.496
•950	24.32	24.08	23.44	22.58	21.75	21.16		1.521
•975	21.86	21.64	21.05	20.27	19.52	18.99		1.546
1.000	19.62	19-43	18.90	18.20	17.53	17.06		1.571
	-/	- / 4 1 0						

MA	CH NO =	25.00	SP	HERE	AN	GLE OF A	TTACK =	1.00
		<b>P</b> /	P FREE-S	TOFAM A	T PLANE	ANGLES	•	
L/RN	0.	30.	60.	90.	120.	150.	180.	S/RN
E / ///		000	000	,,,,	2200	2,00	2000	<b>37</b>
0.000	805.11	805.11	805.11	805.11	805-11	805.11	805.11	•000
.025	764.55	763.57	760.89	757.24	753.60	750.95	749.98	. 224
•050	721.14	719.81	716.20	711.29	706.41	702.84	701.55	.318
.075	678.88	677.33	673-11	667.39	661.72	657.62	656.12	•390
•100	638.17	636.49		625.69	619.51	615.02	613.38	•451
.125	599.14	597.36	592.51	585.92	579.39	574.62		• 505
•150	561.72	559.87		548.06	541.34	536.46		• 555
•175	526.22			512.36	505.48	500.47		.601
.200	492.25			478-17	471.27	466.27		• 644
•225	459.94			445.99	439.10	434.09		•684
•250	429.43			416-89	409.37	403.35		•723
•275	398.68	396.69		385.11	378.44	373.60		•760 705
.300	371.28			357.87	351.31	346.56		•795
•325	345.19 320.53		338.59 314.13	332.10 307.83	325.71 301.64	321.09 297.17		•830 •863
•350 •375	297.27			285.02	279.05	274.74	-	• 896
•400	275.40		269.45	263.61	257.87	253.74		•927
.425	254.84	253.31		243.54	238.05	234.09		958
•450	235.56			224.75	219.51	215.73		• 988
•475	217.48	216.08		207.19	202.19	198.60		1.018
•500	200.57			190.79	186.05	182.65		1.047
•525	184.76	183.50	180.08	175.49	171.01	167.78		1.076
•550	170.01	168.81	165.57	161.24	157.00	153.95		1.134
•575	156.24	155.11		147.97	143.98	141-11		1.132
.600	143.43			135.64	131.89	129.19	128.22	1.159
•625	131.51	130.51	127.81	124.20	120.68	118.15	117.24	1.186
•65 O	120-44	119.50	116.97	113.59	110.29	107.93	107.08	1.213
•675	110.17	109.29	106.92	103.76		98.48	97 • 6 8	1.240
•700	100.65		97.62	94 • 67	91.80	89.74		1.266
•725	91.84			86 • 27	83.60	81.68	80.99	1.292
•750	83.69		81.06	78.51	76.03	74.25		1.318
•775	76.16			71.35		67.40		1.344
• 8 O O	69.21	68.60	66 • 95	64.76	62.62	61 • 10	60.55	1.369
•825	62.80	62.23	60.72	58.69	56.72	55.31	54.80	1.395
•850	56.91	56.39	54.98	53.10	51.29	50.00	49.53	1.420
-875	51.49	51.01	49.71	47.99	46.31	45.11	44.68	1.445
•900	46.50	46.06	44.86	43 • 29	41.75	40.66	40 • 26	1.471
•925	41.94	41.54	40.44	38 <sub>6</sub> 98	37-57	36.56	36-19	1.496
•950°	37.75	37.37	36.37	35.03	33.73	32.81	32.47 29.11	1.521
•975	33.90	33.56	32.64	31.42	30.24	29,41	26.09	1.546 1.571
1.000	30.40	30.09	29.26	28.416	27.10	2635	20.03	1.011

M.A	VCH NO =	30.00	SI	PHERE	AA	NGLE OF A	TTACK =	1.00
		D /	P FREE-	STOFAM	AT PLANE	ANGLES	•	
1.401	•							S/RN
L/RN	0.	30.	60.	90•	120.	150.	180.	SZKN
n . n n n	1150.15	11-EQ.1E	1150.15	1150.45	1159-15	1150.15	1150.15	.000
					1084.97			•224
	1038.20				1016.98			.318
•075	977.32	975.09	969.02	960.78	952.61	946.69	944.53	•390
	918.67					885.30	882.94	.451
•100		916.24 859.86		843.37		827.08	824.58	•505
.125	862.43							•555
•150	808-49		798.58		779-11	772.08	769.52	
•175	757.32		747.28	737.32		720.17		.601
.200	708.32	705.57		688.02		670.86	668.23	.644
•225	661.73	658.99		641.60		624.43		.684
•250	617.75	615.38				579.83		.723
• 275	573.66					537.53		.760
•300	534.18		524.45			498.54		•795
• 325	496.57		487-•07			461.85		.830
• 35 0	461.03	458.55				427.42	425.08	•863
•375	427.57		_	-		395.14		- 896
•400	396.09	393.78	387.52			364.89	362.74	• 927
• 425	366.49	364.27				336.61	334.54	• 958
• 45.0	338.72	336.60	330.87	323.16	315.61	310.18	308.21	• 988
•475	312.69	310.67	3:05.21	297-87	290.69	285.52	283.65	1.018
•500°	288.35	286.42	281.23	274.27	267.45	262.55	260.78	1.047
•525	265.60	263.78	258.86	252.26	245.80	241.16	239.48	1.076
•550	244.36	242.64	237.98	231.74	225.64	221.26	219.68	1.104
•575	224.55	222.93	218.54	212.65	206.90	202.78	201.29	1.132
.600	206.11	204.58	200.45	194.91	189.51	185.64	184.24	1.159
•625	188.96	187.53	183.65	178.45	173.39	169.75	168.44	1.186
•650	173.04	171.69	168.05	163.19	158.45	155.05	153.82	1.213
.675	158.26	157.00	153.60	149.05	144.62	141.45	140.30	1 - 240
•700	144.57		140.22	135.98	131.84	128.89		1.266
.725	131.90	130.80	127.84			117.29	116.30	1.292
•750	120.18	119.16	116.40	112.73	109.16	106.60		1.318
.775	109.35	108.40	105.84	102.44	99.13	96.76	95.90	1.344
.800	99.36						86.92	
.825	90.15	89.34	87.15	84.24	81.40	79.37	78.65	1.395
·85 0-	81.67	80.92	78.90	76.22	73.61	71.74	71.07	1.420
•875	73.89	73.20	71.33	68.85	66.45	64.74	64.12	1.445
•900	66.73	66.09	64.39	62.11	59.90	58.32	57.75	1.471
•925	60.17	59.59	58.01	55.91	53.87	52.41	51.89	1.496
•950	54.13	53.59	52.14	50.22	48.36	47.04	46.57	1.521
•975	48.60	48.11	46.80	45.06	43.39		41.79	1.546
1.000	43.62	43.18	42.00	40 • 45	38.97	37.93	37.56	1.571
T 0 0 0:	73406	40 1 1 0	74.00	70 + 72	30.31	G1 • 90	31 • 30	* - ) i *

MA	CH NO =	3.50	SPI	HERE	ANG	LE OF AY	TACK =	3.00
		P / P	FRFF-S	TREAM AT	PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.		180.	S/RN
	•	00.	00.	<del>5</del> 0 €	1200	150 •	100.	SZKN
0.000	16.20	16.20	16.20	16.20	16.20	16.20	16.20	.000
.025	15.73	15.67	15.52	15.32	15.13	14.98	14.93	. 224
• 05 0	15.03	14.96	14.76	14.49	14.23	14.04	13.97	.318
.075	14.33	14.24	14.01	13.69	13.38	13.16	13.08	.390
-100	13.62	13.53	13.27	12.93	12.60	12.36	12.27	•451
·125	12.94	12.84	12.57	12.20	11.84	11.59	11.49	•505
•150	12.28	12.17	11.89	11.50	11.13	10.86	10.76	•555
•175	11.63	11.52	11.23	10.83	10.45	10.17	10.06	.601
.200	11.00	10.89	10.59	10.18		9.49	9.39	.644
•225	10.39	10.28	9.97	9.55		8.75	8.63	.684
•250	9.79		9.36	8.87		8.43		•723
•275	9.21			8.41	8.18	7.86		.760
.300	8.52	8.43	8 • 43	8.00	7.59	7.32	7.22	•795
•325	8.36			7.47		6.82	6.73	.830
•350	7.77	7.66		6.98		6.39	6.30	.863
•375	7.29	7.18	6.90	6.54		5.97		•896
•400	6.83	6.73	6.47	6.14		5.57		• 927
•425	6.42	6.33	6.08	5.74	5.42	5.19		•958
•450	6.04	5.94	5.69	5.36	5.05	4.83	4.75	. 988
•475	5.66	5.57	5.32	5.01	4.71	4.50	4.42	1.018
•500	·5 • ·30	5.21	4.97	4.67	4.38	4.18	4.11	1.047
•525	4.95	4.87	4.65	4.35	4.08	3.88	3.82	1.076
•550	4.63	4.55	4.33	4 • 05	3.79	3.61	3.54	1.104
•575	4.32 4.03	4.25	4.04	3.77	3.52	3.35	3.28	1.132
•600		3.96	3.76	3.51	3.27	3.10	3.04	1.159
•625 •650	3.76 3.50	3.69	3.50	3.26	3.03	2.87	2.82	1.186
•675		3.43 3.19	3.25 3.02	3.02	2.81	2.66	2.60	1.213
•700	3.02		2.80	2.80	2.60	2.46	2.41	1.240
•725			2.60	2.60		2.27	2.22	1.266
•750	2.60	2.55		2.40 2.22	2.22	2.09	2.05	1.292
•775	2.41	2.36	2.22	-		1.93		1.318
-800	2.23	2.18				1.77	1.73	1.344
•825	2.06	2.10	1.89	1.89 1.74	1.60			
•850	1.90	1.86	1.75	1.60	1.47	1.50	1.46	1.395
•8.75	1.75	1.71	1.61	1.47	1.34	1.37 1.26	1.34 1.23	1.420 1.445
•900	1.61	1.58	1.48	1.35	1.23	1.15	1.12	1.445
•925	1-48	1.45	1.35	1.24	1.13	1.05	1.03	1.471
•950	1.36	1.33	1.24	1.13	1.03	•96	•94	1.521
.975	1.25	1.22	1.14	1.03	•94	•88	• 86	1.546
1.000	1.14	1.11	1.04	•94	•86	•80	•78	1.571
	,			<b>₩</b>	<b>4</b> 0 0	₩0.0	• 10	T # 21 T

MAC	H NO =	5.00	SPH	EŖE	ANG	LE OF AT	TACK =	3.00
		n / D	EDEE-ST	REAM AT	PLANE	ANGLES		
	_		60.	90.		150 •	180 .	S/RN
L/RN	0 •	30.	00•	<b>30 •</b>	20.0			
	70 55	32.55	32.55	32.55	32.55	32.55	32.55	.000
0.000	32.55	31.44	31.1.3	30.76	30.28	29.98	29.87	.224
.025	31.56	29.93	29.51	28.94	28.38	27.97	27.83	.318
.050	30.08	28.41	27.92	27.25	26.60	26.14	25.97	•390
•075	28.59	26.91	26.37	25.65	24.94		24.25	•451
•100	27.11 25.67	25.46	24.89		23.38		22-65	•505
•125	24.28	24.06	23.46		21.89		21.14	• 555
•150	22.93	22.71	22.09	21.28	20.49		19.71	.501
•175	21.63	21.40	20.78	19.95	19.15	18.58	18.37	-644
•200	20.38	20.15	19.52	18.69	17.87	17.30	17.10	•684
•225	19.17	18.94	18.31	17.47	16.69	16.1-3	15.92	.723
•250	18.00	17.77	17.15	15.35	15.56	15.01	14.81	.760
•275	16.90	16.68	16.07	15.27	14.50	13.96	13.76	•795
•300 •325	15.85	15.62	15.03	14.25	13.50	12.97	12.79	
•350	14.85	14.63	14.05	13.29	12.56	12.05	11.87	
•375	13.89	13.68	13.12	12.38	11.68	11.19	11.01	.896
•400	12.99	12.78	12.24	11.53	10.85	10.37	10.20	
•405 •425	12.13	11.94	11.41	10.72	10.07	9.61	9.45	
• 45 O	11.32	11.13	10.63	9.96	9.34	8.90	8.74	
•475	10.56	10.37	9.89	9.25	8.65	8.23	8.08	1.018
•500	9.83	9.65	9.19	8.58	* -	7.61		1.047
•525	9.14	8.98	8.53	7.95		7.03		1.076
<b>4550</b>	8.50	8.34	7.91	7.36	6.84	6.48		1.104
•575	7.89	7.74	7.33	6.81	6.32	5.97		1.132
•600	7.32	7.17	6.79	6.29	5.82			1.159 1.186
•625	6.78	6.64	6.28	5.81	5.37			1.213
•650	6.27	6.14	5.80	5.35	494			1.240
•675	5.80	5.67	5 • 35		4.54			1.266
.700	5.35	5.24	4.93		4.17		3.83	
•725	4.94	4.83	4.54		3.82	3.59	3.50 3.20	
•750	4.55	4.44	4-17		3.50		2.93	
•775	4.18	4.09	3.83	3.51	3.21	3.00	2.67	
.800	3.84	3.75		3.21	2.93	2.74	2.43	1.395
.825	3.53	3.44	3.22	2.94	2.67	2.49	2.43	1.420
·85 0	3.23		2.95	2.68	2.44	2.27	2.01	1.445
.875	2.96	2.88	2.69	2.45	2.22	2.06	1.82	1.471
.900	2.70		2.46	2.23	2.02	1.87	1.65	1.496
.925	2.47		2.24	5.05	1.83	1.70	1.50	1.521
.950	2.25	2.19	2.03	1.84	1.66	1.54	1.36	1.546
•975	2.04		1.85	1.67	1.50	1.39	1.23	1.571
1.000	1.85	1.80	1.67	1-•51	1.36	1.27	TACO	200.2

	HAC	H NO =	10.00	SP	HERE	AN	GLE OF A	ATTACK =	3.00
			D /	P FREE-S	TDEAM A	T PLANE	ANGLES	•	
L/R	N	0.		60.	90.	120.	150 •		S/RN
	(IV	Ų e	30 •	00.	<b>70 6</b>	1200	190 •	100+	3/8/4
0.00	0	128.81	128.81	128.81	128.81	128.81	128.81	128.81	.000
.02		124.71			121.21	119.49	118.24	117.78	.224
.05		118.66			113.93	111.63	109.97	109.37	•318
• 07		112.50			107.01	104.34	102.41	101.72	•390
•10		106.43			100.40		95.42	94.66	.451
.12		100.49	_		94.14	91.07	88.88		•505
.15		94.78				85.04	82.76	81.95	• 555
•17		89.25			82.52	79.32	77.03	76.21	•601
.20		83.96			77.17		71.64	70.82	. 644
. 22		78.88			72.07		66.35	65.45	-684
.25		74.00			67.11	63.65	61.42	60.63	.723
• 27		69.37			62.29		56.98		.760
• 30		64.57			58.02	54.94	52.77		.795
•32		60.34			53.94	50.94	48.82		.830
• 35		56.33			50.09	47.15	45.10	44.37	.863
• 37		52.51			46.43	43.61	41.54	40.94	.896
.40		48.88			43.00	40.30	38.41	37.74	.927
.42		45.43			39.79	37.20	35.40	34.76	.958
. 45		42.18			36.79	34.31	32.59	31.98	-988
.47		39.13			33.97	31.62	29.98	29.40	1.018
-50		36.25			31.34	29.10	27.55	27.00	1.047
•52		33.55			28.88	26.76	25.29	24.77	1.076
•55		31.02			26.59	24.58	23.19	22.70	1.104
.57		28.64	28.04	26.47	24.45	22.55	21.25	20.78	1.132
•60	0-	26.41	25.85	24.37	22.45	20.67	19.44	19.01	1.159
•62	25.	24.33	23.80	22.40	20.60	18.93	17.77	17.37	1.186
•65	50	22.39	21.89	20.57	18.88	17.31	16.23	15.85	1.213
.67	75.	20.57	20-10	18.86	17.28	15.81	14.81	14.45	1.240
•70	0 0	18.68	18.44	17.28	15.80	14.43	13.49	13.16	1.266
.72	25	17.30	16.89	15.81	14.43	13.15	12.28	11.97	1.292
•75	50-	15.84	15.46	14.45	13.16	11.97	11.16	10.87	1.318
.77	15	14.48	14.13	13.19	11.99	10.88	10.13	9.86	1.344
.81	0 0:	13.23	12.89		10.90	9.88	9.18	8.94	1.369
•82	25	15.06	11.75	10.94	9.4.90	8.96	8.31	8 • B-9	1.395
. 85	50	10.98	10.69	9.94	8 • 98	8.11	7.51	7.30	1.420
-87		9.98				7.33			1.445
• 90		9.06	-			6.61	6.10		1.471
•92		8.21		7.39		5.95			1.496
• 95		7.43		6.67		5.36			1.521
•97		6.71				4.82			
1.00	).0=	6.04	5.87	5.41	4.85	4.35	4.02	3.91	1.571

l	MACH NO =	15.00	SP	HERE	ANO	GLE OF	ATTACK =	3.00
		D /	P FREE-S	TOFAN A	T PLANE	ANGLE	•	
L\b	N 0.	30 •	60.	90.	120.	150 •	180•	SZRN
E/FI		30 •	90.	<b>50</b> •	120•	3,500	1000	<b>57</b>
0.00	289.25	289.25	289.25	289.25	289.25	289-25	289.25	.000
.02		278.92	276.01	272.07	268.18	265.35		.224
•051		264.86	260.93	255.63	250.40	246.64		.318
•07		250.67	246.10	239.96	233.92	229.57		•390
-10		236.78	231.75	225.01	218.42	213.72		.451
.12		223.24		210.83	203.89	1-98-92		•505
•15		210.23		197.33	190.20	185.13		• 555
•17!		197.67		184.59	177.27	172.07		.601
-20		185.70		172.37	165.07	159.89		- 644
.22		174.12		160.88	154.19	150.21		•684
.25		163.13		151.86	141.89	136.91		•723
•27		153.79		138.88	131.85	126.84		.760
.30		141.80	136.42	129.19	122.24	117.34		•795
•32!		132.44		119.97	113.21	108.44		•830
•35		123.41		111.28	104.71	160.10	98.46	-863
•37				103.08	96.75	92-33	90.75	.896
. 4.0				95 • 39	89.31	85.07	83.56	• 927
.42	5 100.84	99.06	94.33	88.18	82.36	7-8 - 31	76.87	• 958
.45	0 93.55	91.84	87.32	81.43	75.88	72.02	70.65	.988
•47	5 86.69	85.05	80.73	75.•12	69.83	66.17		1.018
•50	0 80.23	78.68	74.55	69.22	64.20	60.73		1.047
•52	5 74.17	72-69	68.77	63.71	58.96	55.68		1.076
•55	0 68.49	67-09		58.58	54.09	51.00		1.104
•57	5 63.17	61.84	58.32	<b>53.</b> 80	49.57	46.65		1.132
•60				49.35	45.37	42-64		1.159
•62		52.35		45.22	41.49	38.93		1.186
•65	-			41.39	37.90	35.51		1.213
• 67		44.10	41.35	37.84	34.58	32-34		1240
•70		40.41		34.55	31.51	29.43		1.266
•72				31.•51	28.68	26.74		1.292
•75				28.70	26.07	24.27		1.318
• 7-7-				26.10	23.66	22.00		1.344
.80		28.11		23.71	21.45	19.92		1.369
.82		25.58	23.79	21-51	19.42	18.00		1.395
•85		23.25		19.48	17.55	16.25		1.420
-87		21.09		17.62	15.84	14.64		1.445
•90		19.11	17.69	15.91	14.27	13.16		1.471
•92		17.28		14.33	12.83	11-83		1.496
•95		15.60		12.90	11.53	10.62		1.521
•97		14-06		11-59	10.36	9.54		1.546
1.00	.Q- 13•03	12.64	11.65	10.41	9.31	8.60	8.36	1.571

۲	IACH NO =	20.00	SP	HERE	AN	GLE OF	ATTACK =	3.00
		P /	P FREE-S	TREAM A	T DIANE	AHCLES	•	
L/RN	0.	30.	60.	90.	120.			0 (0)
		300		50.	150.	150 •	180.	SZRN
0.000	513.86	513.86	513.86	513.86	513.86	513.06	513.86	•.000
•025		495.47	490.29	483.28	476.35	471.31		
• 05 0		470.44	463.44	454.00	444.70	437.96		• 224
.075		445.18	436.99	426.04	415.30	407.55		•318
.100		420.39		399.42	387.66	379.28		•390
.125		396.28	386.76	374.12	361.75	352.89		.451
•150		373.05	363.19	350.04	337.31	328.25		-505
.175		350.65	340.58	327.28	314.22			•555
.200		329.26	319.05	305.53		304.99		.601
•225		308.62	298.50	284.95		283.15		.644
•250		289.03	278.81	266.63	272.55	263.64		•684
-275		271.14	260.78	246.21	251.68	242.65		•723
.300		251.50	241.76			224.64		•760
•325		234.64	225.04	228.85		207.73		•795
•350		218.54		212.41	200.36	191.89		.830
•375			194.22	196.93	185.27	177.10	174.18	• 863
.400		4 88 .86	180.12	182-39	171.14	163.28	160.48	•896
•425		175.25		168.72	157.93	150.39		• 927
•450		162.42		155.92	145.58	138.39		• 958
•475				143.92	134.07	127.21	124.78	• 988
•500		150.36 139.03	142.68	132.71	123.33	1-16.83	114.52	1.018
•525				122.24	113.34	1-07.18	105.00	1.047
•550		128.41	1-21.46	112.47	104.05	98.22	96.16	1.076
•575		118.46	111.87	103.36	95.41	89.92	87.98	1.104
		109-15	102.91	94.89	87.39	82.23	80.41	1.132
•600 •625		100-45	94.56		79-97	75.13	73.42	1.159
		92.32	86.79		73.89	68.56	66.96	1.186
•650	86-73	84.76	79.56	72.90	66.73	62.49	61.00	1.213
•675	79.56	77.71	72.85	66.62	60.85		55.51	1.240
•700°		71.17	66.62	60.80	55.42			1.266
•725		65.09	60.84	55.42	50.42		45.80	1.292
•750		59.46	55.50	50.45	45.80	42.63	41.52	1.318
•775		54.24	50.55	45:• 87	41.56	38.62	37.59	1.344
• 80 0°	5071	49.41	45.99	41-64	37.65	34.94	33.99	1.369
•825	46.15	44.94	41.77	3775	34.07	31.56	30.69	1.395
-850	41-94	40.82	37.89	34.18	30.78	28.47	27.67	1.420
• 875		37.01	34.31	30-89	27.76	25.64	24.89	1.445
•900	34.47	33.52	31.02	27-88	24.99	23.04	22.37	1.471
•925	31.17	30.30	28.01	25.11	22.46	20.69	20.07	1.496
•950	28.15	27.34	25.23	22.57	20.17	18.57	18.G2	1.521
•975	25.36	24.62	22.69	20.•27	18.11	16.68	16.19	1.546
1.000	22.81	22.13	20.38	18.20	16.27	15.03	14.60	1.571

	MACH NO =	25.00	SP	HERE	ANO	GLE OF	ATTACK =	3.00
	•	<b>D</b> /	P FREE-S	TOTAM I	AT PLANE	ANGLE	c	
L/R	N 0.	30.	60.	98.	120.	150.		S/RN
LIK	N 0.	30.	6U •	90.	Ť50 €	150.	100 •	SZKN
0.00	0 802.81	802.81	802.81	802.81	802.81	802.81	802.81	.000
•02		774.06	765.97	755.01	744.16	736.29		.224
• 05		734.92	723.98	709.21	694.68	684.20		.318
.07		695.43	682.68	665.46	648.67	636.58		.390
•10		656.62	642.64	623.90	605.55	592.38		.451
.12		619.00	604.13	584.27	564.84	550.98		•505
.15		582.58	567.09	546.54	526.67	512.48		•555
.17		547.49	531.79	510.96	490.52	476.02		.601
-20		514.07	498.08	476.88	456.47	442.02		.644
•22		481.76	465.84	444.80	425.43	410.98		•684
• 25		451.10	435.27	415.75	392.66	378.56		.723
• 27		423.10	406.46	384.13	364.38	350.40		.760
.30		392.37	377.17	356.97	337,60	323.95		.795
•32		366.03	351.02	331.28	312.44	299.21		
• 35			326.24	307.09		276.08		.830
		317.90	302.85	284.35	288.86			•863
•37		-			266.78	254.50		·896
.40		294.46 273.19	280.81	263.00	246.14	234.37		• 92.7
•42			260.07	243.00	226.86	215.62		958
. 45		253.16	240.60	224.27	208-87	198.17		- 988
•47		234.32	222.32	206.75	192.11	181.96		1.018
.50		216.63	205.20	190.40	176.52	166.89		1.047
•52		200.04	189.18	175.15	162-00	152.91		1.076
• 55		184.50	174.21	160.94	148.52	139.96		1.104
•57		169.97	160.24	147.70	1.36.02	127.97		1.132
•60		1-56.38	147.20	135.41	124.43	116.88		1.159
. 62		143.71	135.08	124.00	113.70	106.64		1.186
•65		131.90	123.80	113.41	103.78	97.18		1.213
• 67		120.92	113.32	103.61	94.62	88.47		1.240
•70		110.71	103.61	94.55	36.16	80.43		1.266
•72		101.24	94.61	86.16	73.36	73.04		1,292
• 75		92.45	86.28	78.42	71.17	66.24		1.318
•77		84.32	78.58	71.27	64.56	59.99		1.344
• 80		76.79	71.46	64.70	58.48	54.26		1.369
•82		69.83	64.90	58.64	-	49.01		1.395
•85		63.41	58.85	53.06	477.8	44.19		1.420
•87		57.49	53.28	47.96	43.09	39.79		1.445
•90		52.04	48.17	43.26	38.79	35.76		1.471
•92		47.03	43.47	38.97	34.85	32.07		1.496
• 95		42.44	39.16	35.02	31.25	28.74		1.521
• 97		38.21	35.20	31.41	28.01	25.75		1.546
1.00	0 35.38	34.33	31.58	28.16	25.11	23.13	22.45	1.571

P / P FREE-STREAM AT PLANE ANGLES L/RN 0. 30. 60. 90. 120. 150. 180. S/RN  0.000 1155.84 1155.84 1155.84 1155.84 1155.84 1155.84 1155.84 .000 .025 1118.71 1114.43 1102.78 1087.00 1071.37 1060.03 1055.90 .224 .050 1063.88 1058.06 1042.30 1021.03 1000.09 984.99 979.50 .318 .075 1007.96 1001.17 982.81 957.99 933.80 916.39 910.07 .390 .100 952.70 945.25 925.12 898.11 871.66 852.68 845.81 .451 .125 898.98 891.04 863.62 840.99 812.99 793.02 785.82 .505 .150 846.82 838.56 816.23 786.61 757.96 737.49 730.07 .555
L/RN 0. 30. 60. 90. 120. 150. 180. S/RN  0.000 1155.84 1155.84 1155.84 1155.84 1155.84 1155.84 1155.84 1255.84 .000 .025 1118.71 1114.43 1102.78 1087.00 1071.37 1060.03 1055.90 .224 .050 1063.88 1058.06 1042.30 1021.03 1000.09 984.99 979.50 .318 .075 1007.96 1001.17 982.81 957.99 933.80 916.39 910.07 .390 .100 952.70 945.25 925.12 898.11 871.66 852.68 845.81 .451 .125 898.98 891.04 865.62 840.99 812.99 793.02 785.82 .505
0.000       1155.84       1255.80       1256.90       1155.84       1155.84       1155.84       1155.84       1155.84       1155.84       1155.84       1155.84       1155.84       1155.84       1155.84       1256.90       1256.90       1155.84       1155.84       1155.84       1155.84       1155.84       1155.84       1155.84       1155.84       1155.84       1155.84       1155.84
.025       1118.71       1114.43       1102.78       1087.00       1071.37       1060.03       1055.90       .224         .050       1063.88       1058.06       1042.30       1021.03       1000.09       984.99       979.50       .318         .075       1007.96       1001.17       982.81       957.99       933.80       916.39       910.07       .390         .100       952.70       945.25       925.12       898.11       871.66       852.68       845.81       .451         .125       898.98       891.04       863.62       840.99       812.99       793.02       785.82       .505
.050       1063.88       1058.06       1042.30       1021.03       1000.09       984.99       979.50       .318         .075       1007.96       1001.17       982.81       957.99       933.80       916.39       910.07       .390         .100       952.70       945.25       925.12       898.11       871.66       852.68       845.81       .451         .125       898.98       891.04       865.62       840.99       812.99       793.02       785.82       .505
.075 1007.96 1001.17 982.81 957.99 933.80 916.39 910.07 .390 .100 952.70 945.25 925.12 898.11 871.66 852.68 845.81 .451 .125 898.98 891.04 865.62 840.99 812.99 793.02 785.82 .505
.100 952.70 945.25 925.12 898.11 871.66 852.68 845.81 .451 .125 898.98 891.04 868.62 840.99 812.99 793.02 785.82 .505
•125 898•98 891•04 86S•62 840•99 812•99 793•02 785•82 •505
.150 846.82 838.56 816.23 786.61 757.Q6 737.40 730 07 EEE
##50 04040E 000450 0#04EO LOGGE LSL43 LSL43 LSU41 (200)
•175 796·40 787·98 765·34 735·30 705·83 684·93 677·41
<b>.</b> 200 748.30 739.79 716.73 686.16 656.72 635.87 628.32 .644
•225 701•79 693•20 670•23 639•89 611•47 590•35 581•78     •684
•250 657·43 648·97 626·13 597·12 565·08 544·69 537·33 •723
•275 615.65 607.92 584.07 552.72 524.23 504.07 496.85 <b>.</b> 750
•300 572•79 564•67 542•68 513•55 485•63 465•97 458•94 •795
.325 534.71 526.61 504.97 476.53 449.39 430.35 423.54 .830
•350 498•22 490•32 469•26 441•68 415•46 397•07 390•51 •863
•375 463·61 455·95 435·58 408·97 383·68 365·99 359·69 ·896
.400 430.89 423.51 403.87 378.24 353.96 337.01 330.98 .927
.425 400.01 392.91 374.02 349.43 326.20 310.01 304.26 .958
•450 370·88 364·06 345·97 322·46 300·30 284·90 279·43 ·988
•475 343·46 336·94 319·66 297·25 276·18 261·56 256·37 1·018
.500 317.68 311.47 295.01 273.71 253.73 239.88 234.97 1.047
•525 293·49 287·58 271·95 251·77 232·84 219·77 215·14 1·076
.550 270.82 265.22 250.41 231.31 213.45 201.13 196.77 1.104
.575 249.60 244.30 230.30 212.27 195.46 183.88 179.79 1.132
.600 229.76 224.75 211.55 194.58 178.78 167.93 164.09 1.159
.625 211.23 206.52 194.10 178.16 163.35 153.19 149.61 1.186
•650 193·96 189·54 177·87 162·94 149·09 139·59 136·25 1·213
•675 177.89 173.74 162.81 148.84 135.90 127.05 123.94 1.240
•700 162•94 159•05 148•84 135•79 123•74 115•50 112•61 1•266
.725 149.05 145.42 135.89 123.74 112.52 104.86 102.18 1.292
•750 136•17 132•79 123•91 112·60 102·19 95·09 92·59 1·318
•775 124·23 121·08 112·83 102·33 92·67 86·11 83·81 1·344
•800 113·18 110·26 102·60 92·86 83·94 77·87 75·75 1·369
•825 102·96 100·26 93·16 84·16 75·92 70·32 68·35 1·395
.850 93.53 91.02 84.47 76.16 68.55 63.41 61.61 1.420
•875 84•83 82•52 76•47 68•81 61•82 57•08 55•42 1•445
•900 76·82 74·69 69·11 62·08 55·53 51·26 49·74 1·471
•925 69•45 67•48 62•37 55•89 49•96 45•99 44•62 1•496
.950 62.69 60.88 56.17 50.20 44.83 41.27 40.05 1.521
•975 56·46 54·80 50·46 45·06 40·25 37·10 36·03 1·546
1.000 50.73 49.21 45.29 40.45 36.21 33.48 32.56 1.571

# NSHC/HOL/TR 75-45

1	MACH	NO =	3.50	SPH	IERE	ANG	LE OF AT	TACK =	5.00
			0 4 0	COCE-CT	REAM AT	PLANE	ANGLES		
		•		60.	90.	120.		180.	S/RN
L/R	N	9 •	30•	<b>0</b> 0 •	70•	120.	2504	2000	•
0.00	n	16.11	16.11	16.11	16.11	16.11	16.11	16.11	.000
.02		15.91	15.82	15.58	15.24	14.92	14.68	14.60	.224
.05	-	15.32	15.20	14.86	14.42	13.98	13.66	13.55	.318
.07		14.69	14.54	14.15	13.62	13.12	12.76	12.63	
.10		14.04		13.44	12.87	12.31	11.92		
.12		13.39	13.21	12.76		11.55			
.15	-	12.75	12.57	12.09	11.45	10.83	10.39		
.17		12.13		11.44	10.78	10.14	9.68	9.52	
.20		11.51		10.81	10.13			8.73	
.22		10.92	10.73			8.73		8.42	
• 25		10.34			8.81			7.79	
•27	5				8 • 42			7.23	•760
.30	0			8-40	7.96		6.88	6.72	
• 32	5				7.43		6.42	6.28	
• 35	0	8.38	8.15	7.60		6.38	5.99	5.85	
•37				7.12		5.97	5.58	5.44	• 896
• 40			7.15	6.67		5.57	5.19	5 • 0.6 4 • 70	
•42				6.29	5.72	5.19	4.83		
• 45			6.33	5.90	5.34	4.83	4.49 4.17	4.36 4.05	
•47		6.10	5.94	5.52	4.99	4.∙50 4.•18	3.87	3.75	
•50		5.73	5.5.7	5.17	4.65	3.89	3.58		
•52		5.37	5.22	4.83	4•34 4•04	3.61	3.32	_	
•55		5.03	4.89	4.51 4.21	3.76	3.35	3.07	-	
•57		4.71	4.57 4.27	3.93	3 • · 7 0 3 • · 5 0		2.84		
•60		4.40	3.99	3.66	3.25		2.63		
•62		3.84	3• <del>7</del> -7	3.41	3.02		2.43		
•65 •67		3.58	3.46	3.17	2.80		2.24	-	-
• 0 r		3.33	3.22	2.94	2.59		2.06		
•.72		3.10	3.00	2 • 73			1.90		
•75		2.88	2.78						1.318
.77		2.67	2.5.8	2.34			1.61	1.55	1.344
- 81	า้ก		2.39			1.64	1.47	1.42	1.369
•82		2.30	2.21	2.00	1.74	1.51	1.35	1.30	1.395
.85		2.12	2.05	1.85	1.60	1.38	1.24	1.19	1.420
.87		1.96	1.89	1.70	1.47	1.26	1.13	1.08	1.445
•90		1.81	1.74	1.57	1.35	1.16	1.03	•99	1.471
.92		1.67	1.60	1.44	1.24	1.06	.94	•90	1.496
.99		1.53	1.47	1.32	1.13	•97	•86	•83	1.521
• 97		1.41	1.35	1.21	1.03	•88	•79	•76	1.546
1.0		1.29	1.24	1.11	<b>-</b> -94	.81	•72	•70	1.571

MAC	CH NO =	5.00	SPH	ERE	AN GL	E OF ATI	ACK =	5.00
		D / D	EDEE-91	REAM AT	PLANE	ANGLES		
	•		60.	90.	120.	150 •	180 •	SIRN
L/RN	0•	30.	00.	<b>500</b>	100			
	70 77	32.37	32.37	32.37	32.37	32.37	32.37	.000
0.000	32.37	31.76	31.24	30.53	29.84	29.34	29.16	• 224
.025	31.95	30.44	29.72	28.78	27.86	27.19	26.95	.318
• 05 0	30.70	29.04	28.21	27.11	26.04	25.28	25.00	.390
.075	29.35	27.63	26.72	25.51	24.35	23.52	23.23	.451
.100	27.98	26.25	25.28	23.99	22.77	21.89	21.58	•505
•125	26.61 25.27	24.89	23.88	22.55	21.28	20.38	20.05	• 555
.150		23.57	22.53	21.17	19.87	18.95	18.62	.601
.175	23.96 22.69	22.29	21.24	19.85	18.53	17.60	17.27	.644
.200		21.06	19.99	18.59	17.27	16.36		.684
, 225	21.46 20.26	19.86	18.79	17.39	16.09	15.19		.723
.250	19.10	18.70	17.63	16.27	14.98	14.10	13.79	.760
.275	17.98	17.58	16.54	15.19	13.94	13.08	12.77	•795
.300	16.92	16.53	15.50	14.18	12.96	12.12	11.83	.830
•325	15.89	15.51	14.51	13.23	12.04	11.23	10.95	.863
.350	14.92	14.55	13.57	1.2.33	11.18	10-40	10.12	. 896
.375	13.99	13.63	12.68	11.48	10.37	9.62	9.35	.927
.400	13.10	12.75	11.84	10.68	9.61	8.89	8.64	•958
.425 .450	12.26	11.92	11.04	9.92	8.90	8.21	7:•97	- 988
•475	11.46	11-14	10.29	9.22	8.24	7.58	7.35	1.018
•500	10.70	10.39	9.58	8.55	7.62	6.99	6.77	1.047
•525	9.98	9.68	8.90	7.92	703	6.44	6.23	1.076
•550	9.30	9.02	8.27	7 • 34	6.49	5.93	5.73	1.104
•575	8.66	8.38	7.67	6.79	5.99	5.45	5.27	1.132
600	8.05	7.79	7.11	6.27	5.51	5.01	4.83	1.159
.625	7.48	7.23	6.59	5.79	5.07	4.60	4.43	1.186
.650	6.94	6.70	6.09	5.34	4.66	4.22	4.06	1.213
•675	6.43		5.63	4 - 92	4.28	3.85	3.72	1.240
-700	5.95		5.20	4.52	3.93	3.53	3.40	
.725	5.50		4.79	4.16	3.60	3.23	3.10	1.292
.750		_	4.41	3.82	3.29	2.95	2.83	
•775			4.06	3.50	3.01	2.69	2.58	1.344
800			3.73	3.21	2.75	2.45	2-35	1.369
.825			3.42	2.93	2.51	2.23	2.13	1.395
.850			3.13	2.68	2.28	2.02	193	1.420
.875			2.86	2.44	2.07	1.83	1.75	1.445
.900			2.62	2.22	1.88	1.66	1.59	1.471
.925			2.39	2.82	1.71	1.51	1.44	1.496
.950			2.17	1.84	1.55	1.37	1.31	1.521
•975			1.97	1.67	1.40	1.24	1.19	1.546
1.000			1.79	1.51	1.28	1.13	1.09	1.571

	MACH NO =	10.00	SP	HERE	ANO	SLE OF	ATTACK =	5.00
		D /	P FREE-S	TDEAM /	T PLANE	ANGLE	c	
L/R	N n	30 •	60 •	90.		150 •		S/RN
		30 •	00.	<b>30 •</b>	1504	199.	100	37 KII
0.00	128.06	128.06	128.06	128.06	128.06	128.06	128.06	.000
.02			123.40	120.51	117.66	1-15 - 50		.224
. 05				113.28	109.48	106.76		.318
.07		114.35	110.94	106.40	102.00	98.87		•390
.10		108.58		99.83	95.07	91.68		.451
.12		102.86	98.86	93.61	88.58	85.05		•505
•15				87.70	82.51	78.87		•555
•17				82.08	76.82	73.11		.601
.20				76.76	71.46	67.58		.644
.22			77.31	71.70	66.19	62.35		.684
. 25				66.73	61.31	57.72		•723
.27				61.98	56.88	53.33		.760
• 30				57.73		49.24		•795
•32			58.96	53.68		45.39		.830
. 35				49.85		41.82		.863
• 37	56.62			46.21		38.50		.896
. 40	52.89	51.45	47.64	42.81	38.40	35.42		.927
.42	5 49.34	47.93	44.25	39.62	35.40	32.56		• 958
. 45	0 45.94	44.59	41.07	36.63	32.60	29.90	28.95	-988
•47	5 42.74	41.44	38.07	33.83	30.00	27-43	26.54	1.018
•50	39.72	38.48	35.25	31.22	27.58	25.14	24.30	1.047
•52	36.86	35.68	32.61	28.77		23.02	22.23	1.076
•55	34.17	33.05	30.13	26.49	23.23	21.06	20.31	1.104
•57				24.36			18.55	1.132
•60				22.38				1.159
• 62				20.54		16.03		1.186
•65			21.70	18.82		14.61		1.213
•67				17.23		13.29		1.240
•70				15.76		12.09		1,266
• 72				14.39		10.97		1.292
• 75				13.13		9.95		1.318
•77				11.96	10.17	9.01		1.344
-80			12.79	10.88	9•23	8.15		1.369
-82		13.11	11.65	9.89	8 • 3 5	7.36		1.395
. 8 5		11.96	10.61	8 • 97	7.55	6.64		1.420
. 87		10.89	9.64	8.13	6.82	5.97		1.445
• 90		9.90	8.75	7.35	6.14	5.37		1.471
•92		8.99	7.92	6.64	5.53	4.083		1.496
.99		8.15	7.16	5.98	4.97	4.36		1.521
• 97		7.37	6.47	5.38	4.48	3.94		1.546
1.00	0 6.99	6.66	5.82	4.85	4.05	3.58	3.44	1.571

M	ACH NO =	15.00	SP	HERE	ANO	SLE OF	ATTACK =	5.00
		<b>D</b> /	P FREE-S	TDEAM A	T PLANE	ANGLE	<b>c</b>	
L/RN	0.	30.	50.	90 •		150 ·		CADN
LYKI	0 •	30 •	30 •	70 •	120•	150 •	180.	S/RN
0.000	287.54	287.54	287.54	287.54	287.54	287.54	287.54	.000
• 0 25	283.69	281.89	277.03		264.04	259.40	257.72	.224
.050	272.03	269.58	262.98	254.14	245.54	239.40	237.17	.318
.075	259.46	256.58	248.83	238.58	228.63	221.54	218.99	•390
•100	246.65	243.49	234.99	223.73	212.92	205.27	202.51	.451
•125	233.97	230.58	221.52	209.66	198.24	190.24	187.39	•505
•150	221.47	217.94	208.58	196.24	184.56	176.26	173.30	• 555
.175	209.35	205.73	195.10	183.59	171.58	163.25	160.29	
.200	197.55	193.89	184.20	171.45	159.48	152.83	149.89	-644
.225	186.21	182.54	172.70	160.04	149.81	139.02	136.12	.684
.250	175.19	171.51	161.79	151.09		128.50	125.61	•723
•275	164.64	161.01	153.01	138.19		118.61		
.300	154.53	152.69	140.63	128.55	117.18	109.37		
•325	144.87	140.49	131.31	119.38	108.32		98.09	
.350	134.86	131.43	122.35	110.75	100.02	92.73	90.18	.863
•375	126.04	122.68	113.85	102.59	92.28			.896
.400	117.61	114.35	105.79	94.95	85.05	78.36	76.03	• 927
•425	109.60			87.79	78.32	71.94	69.72	•958
.450	101.99		91.04	81.08	72.05	65.98		.988
•475	94.79	91.89	84.31	74.80	66.21	60.46	58.47	1.018
•500	88.00	85.22	77.99	68.94	60.79	55.35	53.47	1.047
•525	81.60	78.94	72.05	63.46	55.75	50.62	48.84	1.076
•550	75.57	85.22 78.94 73.04	66.50	58.36	51.08	46.25		1.104
•575	69.89	67.50	61.30 56.44	53.61	46.74	42.21	40.65	1.132
•600		62.30	56.44	49.28	42.74	38.49	37.03	1.159
•625		57.43	51.90	45.07	39.03	35.06	33.69	
•650			47.66	41.26	35.61	31.90	30.63	
•675				~7.73		28.99	27.81	
.700			40.06		29.53		25.22	
.725		40.94	36.66	31.43	26.85	23.86	22.85	
	39.07		33.51	28.63	24.37	21.61		
	35.77				22.10			1.344
.800	32.70	31.34	27.87	23.67	20.01	17.65	16.85	1.369
•825		28.59	25.37	21.47	18.09	15.92	15.18	1.395
•850	27.21	26.04	23.05	19.45	16.34	14.33		1.420
•875		23.68	20.92	17.60	14.72	12.88		1.445
.900			18.96	15.89	13.25	11.56		1.471
•925		19.50	17.15	14.32	11.90	10.38	9.88	1.496
• 950		17.64	15.48	12.89	10.69	9.34		1.521
•975		15.94	13.95	11.58	9.61	8.42		1.546
1.000	15.09	14.37	12.55	10.41	8.66	7.64	7.31	1.571

MA	CH NO =	20.00	SP	HERE	AN	GLE OF A	TTACK =	5-• 0 <b>0</b>
		P /	P FREE-S	TOEAM A	T PLANE	ANGLES	•	
L/RN	0.	30.	60.	90.	120.	150.	180.	SZRN
0.000	510.82	510.82	510.82	510.82	510.82	510.82	510.82	•000
.025	503.96	500.76	492.10	480 - 44	468.98	460.71	457.71	•224
.050	483.21	478.85	467.09	451.36	435.99	425.04	421.09	.318
.075	460.80	455.68	441.88	423.59	405.88	393.23	388.68	.390
-100	437.98	432.33	417.21	397.14	377.86	364.21	359.30	• 451
.125	415.38	409.36	393.20	372.02	351.67	337.38	332.29	•505
.150	393.11	386.82	370.11	348.10	327.22	312.42	397.17	• 555
.175	371.48	365.03	347.84	325.49	304.13	289.23		.601
.200	350.42	343,89	326.59	303.90	282.43	268.67	263-11	.644
•225	330.19	323,61	306.11	283.43	262.98	246.45	241.23	• 684
·250	310.52	303.99	286.60	265.18	242.18	227.62	222.45	•723
•275	291.75	2.85 • 1.8	269.09	244.9°	224.27	269.98	204.94	.760
.300	273.86	268.35	249.38	227.69	207.44	193.55	188.66	•795
• 325	255.61	249.14	232.63	211.37	191.68	178.24	173.52	.830
.350	238.98	232.83	216.64	195.99	176.96	164.01	159.47	- 863
•375	223.22	217.23	201.50	181.53	163.20	150.77	146.42	•896
.400	208.21	202.40	187.20	167.95	150.36	138.48	134.33	.927
•425	193.95	188.35	173.70	155.22	138.40	127.07	123.13	• 958
•450	180.45	175.05	160.99	143.30	127.26	116.50	112.76	•988
•475	167.67	162.50	149.04	132.16	116.91	1-06-71	103-17	1.018
•500	155.60	150.66	137.81	121.75	107.29	97.64	94.30	1.047
•525	144.22	139.51	127.28	112.03	98.35	89.26	86.11	1.076
• 55.0	133.51	129.03	117.42	102.98	90.07	81.51	78.56	1.104
•575	123.44	119.19		94.55	82.39	74.36	71.60	1.132
•600	113.99	109.97	99.56	86.71	75.29	67.77	65.19	1.159
<b>.</b> 625	105.13	101.33	91.52	79.43	68.73	61.70	59.29	1.186
•650	96.83	93.25	84.02	72.68	62.67	56.12	53.86	1.213
•675	89.07	85.70	77.04	66.43	57.08	50.98	48.88	1.240
• <b>:</b> 700	81.83	78.67	70.56	60.64	51.93	46.25	44.31	1.266
-725	75.08	7-2-12	64.54	55.28	47.18	41.91	40.11	1.292
•750	68.80	66.03	58.95	<b>50-34</b>	42.81	37.93	36.27	1318
•775	62.95	60.37	53.78	45.77	38.80	34.29	32.75	1.344
			48.99			30.95		
•825	52.49	50.26	44.57	37.69	31.73	27.89	26.59	1.395
•.850	47.82	45.76	40.49	34.13	28.63	25.10	23.90	1.420
•875	43.51	41.59	36.72	30.85	25.79	22.54	21.45	1.445
•900	39.52	3.7.74	33.25	27.85	23.19	20.23	19.24	1.471
•925	35.83	34.20	30.06	25.09	20.83	18.16	17.27	1.496
•950	32.43	30.93	27.13	22.56	18.70	16.31	15.54	1.521
•975	29.31	27.93	24.43	20.26	16.80	14.71	14.04	1.546
1.000	26.43	25.17	21.96	18.20	15.13	13.34	12.77	1.571

۲	IACH NO =	25.00	SP	HERE	AN	GLE OF	ATTACK =	5.00
		D /	P FREE-S	TOEAM /	T PLANE	ANGLE	c	
L/RN	0.	30.	60.	90.	120.	150.	180.	SZRN
-L/KN	U •	30•	00 •	30.	1204	100 •	100 •	SZKI
0.000	798.06	798.06	798.06	798.06	798.06	798.06	798.06	• 900
-825		782.34	768.80	750.57	732.64	719.71	715.02	.224
• 050		748.07	729.68	705.07	681.12	663-89		.318
• 075		711.84	690.31	661.62	633.97	614.25		.390
•100		675.37		620.35	590.14	568.70		. 451
•125		639.39		580.97	549.09	526.78		•505
•150		604.22		543.51	510.87	487.71		• 555
.175		569.98		508.16	474.68	451.42		.601
-200		536.94		474.31	440.90	419.04		•644
•225		505.21	477.79	442.45	409.92	384.51		• 684
•250		474.46		413.42	377.82	355.05		•723
•275		445.17		382.16	349.81	327.48		.760
•300		418.53		355.17	323.50	301.79		•795
•325		388.72	362.88	329.64	298.88	277.88		.830
•350		363.20	337.89	305.60	275.85	255.63		•863
•375		338.81	314.23	283.01	254.37	234.96		• 896
•400		315.63	291.87	261.80	234.32	215.76		•927
.425	-	293.67	270.78	241.91	215.64	19795		• 958
• 450	-	272.89		223.30	198.25	181.45		• 988
•475		253.28	232.25	205.89	182.08	166.16		1.018
•500		234.78	214.71	189.63	167.06	152.00		1.047
•525		217.37		174:47	153.11	138.92		1.076
		-	182.87	160.34	140.19	126.84		1.104
•550		201.00		147.18	1-28-22	115.69		1.132
•575		185.64		134.95	117.15	105.42		1.152
•600		171.24						
.625		157.76	142.45	123.60	1.06.91	95.95	92.19	1.186
•650		145.15		113.07	97.47	87.24		1.213
.675		133.38	119.87	103.32	88.75	79.23		1240
•70 C		122.41		94.29	80.72	71.87		1.266
.725		112.20	100.37	85.95	73.32	65.12		1.292
•750		102.70		78.24	66.52	58.92		1.318
•775	_	93.88	83.61	71.12	60.27	53.23		1.344
-800		85.70		64.57		48.05	45.84	1.369
-825		78.12	69.26	58.54	49.27	43.29		1.395
-850		71.10	62.89	52.99	44.44	38.95		1.420
-875		64.62	57.03	47.90	40.04	34.97		1.445
•900		58.63		43 • 22	35.99	31.35		1.471
•925	-	53.10	46.66	38.94	32.29	28.09		1.496
•950		48.03		35 • 00	28.94	25.18		1.521
•975		43.35		31.41	25.95	22.62		1.546
1.000	4103	39.06	34.07	28-16	23.30	20.42	19.50	1.571

M/	/CH NO =	30.00	SI	PHERF	AN	IGLE OF A	TTACK =	5.00
		p /	P. FREE-S	TOTAM	AT PLANE	ANGLES	•	
L/RN	0.	30.	60.	90.	120.			CADVI
LYKN	U •	30.	6U .	90•	120.	150.	180.	SIPN
0.000	1149.01	1149.01	1149.01	1149.01	1149.01	1149.01	1149.01	•000
					1054-77			.224
			1050.51				946.82	•318
	1036.35		993.79			884.20	873.96	.390
.100	985.04		938.10	892.99		818.54		.451
•125	933.98		884.13				746.62	•505
•150	883.92	869.75		782.24		701.77		•555
.175	835.00	820.39		731.27		649.43		.601
•200	787.48	772.77		682.46		601.89		.644
•225	741.87	727.01	687.47	636.49		553.28	541.48	•684
•250	697.48	682.68	643.57	593.79	543.62	510.78	499.14	•723
.275	655.02	640.41	602.90	549.89		471.06	459.70	.760
.300	614.91	601.14	559.92	510.95		434.06	423.07	•795
•325	573.35	559.37		474.17		399.65	389.03	.830
•350	536.39	522.53		439.55		367.62	357.41	•863
•37.5	500.87	487.37		407.04		337.86	328.08	•896
•40.0	467.06	453-98		376.50	336.94	310.22	300.89	•927
•425	434.98	422-38	389.44	347.87		284.58		• 95 8
450	404.61	392.48	360.85	321-07		260.83		988
•475	375.86	364.23		296.01	261.74	238.82	230.87	1.018
•500·	348.72	337.60		272.61		218.46		1.047
•525	323.13	312.53	-	250.79		199.63		1.076
•550		288-97		230.44		1-82-25		1.104
•575	276.42	266.86		211.51		166.22		1.132
•600	255.19	246.14		193.92		151.43		1.159
•625	235.28	226.73	-	177.58		137.82	132.41	1.186
•650	216.64	208.59		162.44		1-25.30	120.25	1.213
•675	199.23	191.66	-	148.41		113.78	109.09	1.240
•700	182.98	175.88		135.43		103.19	98.84	1.256
•725	167.83	161.19		123.43		93.47	89.45	1.292
•750	153.73	147.53				84.57	80-84	1.318
•775	140.62	134.84		102.12		76.41	72.97	1.344
•80 O	128.46	123.08	109.34	92-69		68.93	65.77	1.369
•825	11:7.17	112-17	99.43		70.69	62.12	59.20	1,395
•850	106.71	102.08		76.05	63.77	55.87	53.17	1.420
•875	97.05	92.75			57.42	50.14	47.69	1 • 445
•900	88 - 1.1	84.15	74.10	62:02		44.97	4277	1.471
•925	79.86	76.22		55 • 85		40.36	38.40	1.496
•950	7-2-•28	68.91		50:•18		36.30	34.59	1.521
•975	65.29	62.21		-	-	32,79		1.546
1.000				40:•45		29.82	28.62	1.571
T + 0 0 0	20.00	56.03	40+04	サリチサン	33 • 1· I	£ 7 0 0 C	20.02	エ・フィエ

MA	CH NO =	3.50	SP	HERE	ANG	LE OF AT	TTACK =	10.00
		P / E	FDFE_C	TREAM AT	5	•••		
L/RN	0.	30 •	60.	98.		ANGLES		
		000	00 •	90.	120.	150.	180.	SZRN
0.000	15.71	15.71	15.71	15.71	45 74	40 = 4		
•025	16.20	16.02	15.52	14.87	15.71	15.71	15.71	•000
•050	15.88	15.63	14.95	14.07	14.24	13.79	13.63	•224
•075	15.44	15.14	14.34		13.22	12.63	12.42	•318
-100	14.93	·	13.71		12.32 11.49	11.64	11.40	•390
•125	14.40	14.04	13.08	11.86		10.75	10.49	•451
•150	13.85		12.47	11 18	9.99	9.93	9.64	•505
•175	13.29	12.89	11.85	10.53	9.29	9.15		• 555
•20û	12.73	12.33	11.26	9.90	8.51	8.38		-601
• 225	12.18	11.76	10.68	9.29	8.23	7.97		• 644
· 25 0	11.63	11.21	10.11	8.57		7.35	7.07	• 684
•275	11.09		9.55	8.39		6.79	6.53	•723
•300	10.56		8.96	7.78		6.32	6.06	•760
•325	10.03	9.59	8.40	7-28		5 • 8 6 5 • 6 7	5.60	•795
•350	9.50	9.07	8.19	6.81	5.74	5.43	5.18	.830
•375	8.95	8.46	7.65	6.40	5.34	, , ,	4.79	•863
•400	8.41	8.34	7.19	6.00	4.97	,	4.42	.896
•425	8.23	7.78	6.76	5.62	4.62		4.09	•927
<b>•450</b>		7.33	6.38	5.25	4.29		3.77	• 958
•475	7-28	6.91	6.00	4-91	3.98		3.48	-988
•500	-6.∙:86	6.51	5.64	4.58	3.70		3.21	1.018
•525	6.48	6.15	5.29	4.27	3.43		2.96	1.047
•550	6.12	5.79	4.96	3.98	3.17	2.57		1.076
•575	5.76	5.44	4.64	3.71	2.94	2.46		1.104
•600	5.42	5.11	4.34	3.45	2.72	2.40	2.30	
•625	5.09		4.06	3.21	2.51	2.08	2.12	1.159
•650	4.78		3.79	2.98	2.32	1.92	1.94	1.186
•675	4.48		3.54	2.77	2.14	1.76	1.78	1.213
•700	4.19	3.93	3.30	2.56	1.97	1.61	1.63	1.240
•725	3.92	3.68	3.07	2.37	1.81	1.48	1.50	1.266
•750	3.66	3.43		2.20	1.67	1.35	1.37	1.292
•775	3.42	3.20	2.65	2.03	1.53	1.24	1.25	1.318
.800	3.19	2.98	2.46	2.87	1.41		1.14	1.344
•825	2.97	2.77	2.28	1.73	1.29	1.03	1.04	1.369
•850°	2.76	2.57	2.11	1.59	1.18	•94	•95	1.395
•875	2.56	2.38	1.95	1.46	1.08	•86	•87 •79	1.420
•900	2.38	2.21	1.80	1.34	•99	•79	• 7 <del>9</del>	1.445
•925	2.20	2.04	1.66	1.23	•90	•72	• 67	1.471
•950	2.04	1.89	1.53	1.13	•83	•67	•67	1.496
• 975	1.88	1.74	1.40	1.03	•76	•62	•52 •58	1.521
1.000	1.73	1.60	1.29	• 94	•70	•58	•55	1.546 1.571
				-			<b>■</b> J ⊃	<b>↓•</b> フ/1

MACH	H NO =	5.00	SPHE	RE	ANGL	E OF AT	TACK = 10	• 0 0
		5 / 5	COEE-ST	REAM AT	PLANE	ANGLES		
	•	30.	68.•	90 •	120.	150.	180.	S/RN
L/RN	0.	30 •	00.4	,,,,				
	74 50	31.52	31.52	31.52	31.52	31.52	31.52	•000
0.000	31.52	32.17	31.13	29.74	28.40	27.45	27.11	• 224
.025	32.56	31.35	29.91	28.04	26.26	25.02	24.58	.318
.050	31.89	30.30	28.61	26.42	24.37	22.95	22.45	.390
.075	30.94	29.16	27.28	24 . 8.8	22.65	21.11	20.57	.451
.100	29.87 28.74	27.97	25.96	23.41	21.05	19.44	18.87	•505
.125	27.57	26.77	24.67	22.00	19.56	17.90	17.32	•555
.150	26.40	25.57	23.40	20.67	18.16	16.50	15.92	.601
.175	25.23	24.38	22.16	19.38	16.87	15.21	14.63	.644
.200	24.07	23.21	20.97	18.16	15.66	14.02	13.45	•684 707
.225	22.93	22.06	19.80	17.00	14.53	12.92	12.37	•723
.250	21.81	20.94	18.68	15.90	13.48	11.91	11.37	.760 .795
•275	20.72	19.84	17.59	14.87	12.50	10.97	10.45	
.300	19.64	18.77	16.56	13.88	11.58	10 • i=0	9.60	.83D .863
•325	18.59	17.73	15.56	12.96	10.72	9.29	8.81	• 896
.350 .375	17.57	16.74	14.62	12.08	9.92	8.55	8.09	•927
.400	16.60	15.78	13.71	11.26	9.17	7.86	7.42	.958
.425	15.66	14.86	12.85	10.48	8.47	7.22	6.80	.988
.450	14.75	13.98	12.03	9.74	782	6.63	6.23	1.018
•475	13.89	1.3 • 1 4	11.26	9.05	7-22	6.08	5.71	1.047
•500	13.05	12.33	10.52	8.40	6.65	5.58	5.22	1.076
•525	12.26	11.56	9.82	7.79	6.13	5.11	4.78	1.104
•550	11.50	10.83	9.15	7.22	5.64	4.68	4.36	1.132
•575	10.77	10.13	8.52	6.68	5.19	4.28	3•98 3•63	1.159
.600	10.08	9.46	7.93	6.18	4.77	3.91	3.31	1.186
.625	9.42	8.83	7.37	5.71	4.37	3.57	3.01	1.213
.650	8.79	8.23	6.84	5.27	4.01	3.26	2.74	1.240
.675	8.20	7.66	6.34	4.86	3.67	2.97	2.49	i.266
.700	7.63	7-12	5.•88	4 • 47	3.36	2.70	2.26	1.292
.725	7.10	6.62	5.44	4.11	3.07	2.46		1.318
.750	6.59	6.14	5.02	3.78	2-81	2.23	_	1.344
.775	6.12	5.69	4.64	3.47	2.56	2.03 1.83	1.68	1.369
.800	5.67	5.26	4.27	3.18	2:33	1.66	1.52	1.395
,825	5.24	4.86	3.94	2.91	2.12	1.50	1.38	1.420
.850	4.85	4.49	3.62	2.66	1.92	1.36	1.25	1.445
.875	4.47	4.14	3.32	2.43	1-75	1.24	1.14	1.471
.900	4.12		3.05	2.22	1.58	1,13	1.05	1.496
.925	3.79		2.79	2.02	1.44	1.04	.97	1.521
.950	3.48		2.55	1.83	1.31	•96	.91	1.546
.975	3.19		2.33	1.66	1.19	•90	.86	1.571
1.000	2.93	2.69	2.12	1.51	1.09	• 50		

H/	ACH NO =	10.00	SP	HERE	AN	GLE OF	ATTACK =	10.00
		.P 🖊	P FREE-S	TREAM	AT PLANE	ANGLE	•	
L/RN	0 •	30.	60.	90.	120.			C (O)
				,,,,	1200	190 •	100 •	S/RN
0.000	124.56	124.56	124.56	124.56	124.56	124.56	124.56	.000
.025	128.86	127.26	122.95	117.25	111.74	1.07.84		
• 05 0	126.08	123.87	117.97	110.25		97.82		•224 •318
•075	122.19	119.56	112.59	103.58		89.33		•310
•100	117.78	114.84	107.13	97.24	88.10	81.84		
•125	113.11	109.96	101.69	91.21	81.60	75.09		
•150	108.33	105.01	96.37	85.50	75.59	68.94		
•175	103.49	100.06	91.16	80.04	70.02	62.89		• 555
-200	98.68	95.19	86.14	74.87	64.44	57.78		
• 225	93.93	90.39	81.25	69.99	59.60	53.01		.644
.250	89•.25	85.72	76.57	65.00	55.08	48.60	46.37	
•275	84.70	81.13	72.04	60.56	50.85	44.51		•723
.300	80.23	76.72	67.61	56.41	46.89	40.77		•760
•325	75 • 91	72.41	63.12	52.47	43.20	37.32		•795
.350	71.71	68.25	59.21	48.75	39.79	34.14		.830
•375	67.55	63.89	55.42	45.21	36.61	31.22		•863
.400	63.30	60.08	51.79	41.91	33.66	28.52		• 896 027
.425	59.59	56.40	48.33	38.82	30.93			• 927
·450	55.97	52.86	45.03	35.91		23.76	24.43	• 958
.475	52.48	49.47	41.92	33.19	26.04	24 66		•988
•500	49.14	46.21	38.98	30.64	23.86			1.018
•525	45.93	43.13	36.20	28.26	21.84			1.047
•550	42.88	40.20	33.58	26.04	19.97			1.076
•575	39.98	37.42	31.12	23.97	18.25			1.194
.600	37.24	34.80	28.80	22.03	16.66			1.132
•625	34.63	32.31	26.62	20.23	15.20	13.48		1.159
•650	32.17	29.96	24.58	18.56	13.84	12.22		1.186
•675	29.84	27.75	22.66	17.01	12.60	11.08	10.19 9.20	1.213
•700	27.64	25.67	20.87	15.56	11.45	9.06		1.240
•725	25.57	23.71	19.20	14.23	10.40	8.18		1.266
.750		21.87		12.99	9.43	7-•38		1.292
•775		20.15		11.85	8.54	6.64		1.318
.800	20.08	18.53	14.82	10.79	7.73	5.97	6.04	1.344
.825	18.47	17.03	13.56	9.81	6.98	5.37	5.43	1.369
.850	16.97	15.62	12.39	8.91	6.29		4.87	1.395
.875	15.56	14.31	11.31	8 • 08	5.66	4 - 83	4.38	1.420
.900	14.25	13.08	10.30	7.32	5.10	4.35 3.93	3.96	1.445
•925	13.03	11.95	9.37	6.61	4.59		3.60	1.471
.950	11.90	10.89	8.51	5.96	4.15	3.57	3.30	1.496
• 975	10.84	9.91	7.71	5.38	3.76	3.28	3.06	1.521
1.000	9.86	9.01	6.98	4 • 85	3.44	3.05	2.88	1.546
			0430	700	0 • 4 4	2.87	2.76	1.571

P / P FREE-STREAM AT PLANE ANGLES L/RN 0. 30. 60. 90. 120. 150. 180. S/RN  0.000 279.65 279.65 279.65 279.65 279.65 279.65 279.65 .000 .025 289.35 285.73 276.01 263.11 250.63 241.82 238.65 .224 .050 283.08 278.09 264.75 247.28 230.73 219.13 215.02 .318 .075 274.28 268.34 252.57 232.22 213.13 199.96 195.30 .390
L/RN 0. 30. 60. 90. 120. 150. 180. S/RN 0.000 279.65 279.65 279.65 279.65 279.65 279.65 279.65 279.65 .000 .025 289.35 285.73 276.01 263.11 250.63 241.82 238.65 .224 .050 283.08 278.09 264.75 247.28 230.73 219.13 215.02 .318
0.000 279.65 279.65 279.65 279.65 279.65 279.65 .000 .025 289.35 285.73 276.01 263.11 250.63 241.82 238.65 .224 .050 283.08 278.09 264.75 247.28 230.73 219.13 215.02 .318
.025 289.35 285.73 276.01 263.11 250.63 241.82 238.65 .224 .050 283.08 278.09 264.75 247.28 230.73 219.13 215.02 .318
.025 289.35 285.73 276.01 263.11 250.63 241.82 238.65 .224 .050 283.08 278.09 264.75 247.28 230.73 219.13 215.02 .318
.050 283.08 278.09 264.75 247.28 230.73 219.13 215.02 .318
.100 264.31 257.69 240.23 217.83 197.14 183.05 178.03 .451
.125 253.75 246.62 227.93 204.20 182.50 167.69 162.54 .505
.150 242.93 235.44 215.85 191.23 168.83 154.26 150.37 .555
.175 232.01 224.24 204.11 178.92 156.21 140.25 135.09 .601
.200 221.10 213.20 192.70 167.20 144.02 128.65 123.45 .644
·225 210·37 202·34 181·71 156·13 132·76 117·88 112·77 ·684
.250 199.77 191.74 171.02 146.21 122.54 107.94 102.95 .723
.275 189.46 181.45 160.81 134.95 113.01 98.79 93.97 .760
.300 179.37 171.36 152.73 125.56 104.11 90.37 85.73 .795
.325 169.53 161.67 140.76 116.66 95.84 82.63 78.19 .830
.350 160.05 153.60 131.89 108.27 88.16 75.50 71.26 .863
.375 152.63 142.38 123.31 100.36 81.03 68.94 64.91 .896
.400 141.16 133.86 115.13 92.94 74.42 62.91 59.09 .927
.425 132.76 125.53 107.34 85.98 68.29 57.37 53.76 .958
·450 124·56 117·54 99·94 79·46 62·61 52·27 48·86 ·988
.475 116.69 109.90 92.95 73.36 57.35 47.59 44.39 1.018
.500 109.16 102.60 86.35 67.65 52.48 43.29 40.29 1.047
.525 101.95 95.67 80.12 62.33 47.98 39.35 36.54 1.076
.550 95.11 89.09 74.24 57.35 43.82 35.74 33.12 1.104
.575 88.61 82.86 68.72 52.72 39.99 32.43 29.99 1.132
.600 82.44 76.96 63.53 48.41 36.46 29.40 27.13 1.159
.625 76.59 71.39 58.66 44.40 33.21 26.63 24.51 1.186
.650 71.07 66.13 54.09 40.68 30.21 24.09 22.13 1.213
.675 65.86 61.18 49.82 37.22 27.45 21.77 19.96 1.240
.700 60.94 56.53 45.82 34.03 24.92 19.65 17.97 1.266
.725 56.31 52.15 42.10 31.06 22.60 17.72 16.17 1.292
•750 51·96 48·05 38·62 28·33 20·46 15·96 14·53 1·318
•775 47·88 44·21 35·39 25·80 18·50 14·34 13·03 1·344
<b>.800</b> 44.05 40.62 32.39 23.46 16.71 12.88 11.68 1.369
.825 40.48 37.27 29.59 21.30 15.07 11.55 10.47 1.395
.850     37.14     34.15     27.00     19.32     13.57     10.37     9.40     1.420
•875 34·02 31·24 24·60 17·50 12·20 9·32 8·47 1·445
.900 31.12 28.53 22.38 15.82 10.96 8.40 7.67 1.471
•925 28·41 26·02 20·33 14·27 9·86 7·62 7·01 1·496
.950 25.90 23.69 18.43 12.86 8.88 6.97 6.48 1.521
•975 23·57 21·52 16·68 11·57 8·04 6·45 6·08 1·546
1.000 21.41 19.53 15.07 10.41 7.32 6.06 5.81 1.571

H.	ACH NO =	20.00	SP	HERE	AN	GLE OF	ATTACK =	10.00
		p /	P FREE-S	TOFAM A	T PLANE	ANGLES	\$	
L/RN	0.	30.	60.	98.	120.			S/RN
<b>C</b> / I(I)	•	300	00.	<b>50 •</b>	150.	190 •	1000	37 (11
0.000	496.78	496.78	496.78	496.78	496.78	496.78	496.78	.000
•025	514.04	507.61	490.29	467.31	445.12	429.36	423.72	.224
• 05 0	502.89	493.99	470.24	439.10	409.62	388.94	381.61	•318
-075	487.21	476.63	448.57	412.27	378.23	354.74	346.42	.390
o 100	469.46	457.66	426.52	386.61	349.76	324.53	315.57	• 451
•125	450.66	437.92	404.63	362.30	323.54	297.20	287.95	•505
•150	432.33	418.00	383.08	339.16	299.23	272.84	263.91	• 555
.175	411.50	398.06	362.14	317.17	276.53	248.68	239.38	.601
.200	392.44	378.35	341.76	296.33	254.71	227.88	218.61	•644
•225	373.30	358.99	322.14	276.39	235.22	208.68	199.58	•684
• 250	354.41	340.05	303.13	257.58	216.99	191.01	182.16	•723
•275	335.99	321.66	284.83	239.14	200.01	174.76	166.20	.760
.300	317.97	303.73	268.45	222.36	184.21	159.81	151.57	• 795
•325	300.49	286.38	249.62	206.52	169.52	146.05	138.16	•830
•350	283.46	270.59	233.67	191.59	155.88	133.39	125.87	• 863
•375			218.36	177.56	143.22	121.75		•836
-400	250.33			164.38	131.48	111.05	104.28	• 927
•425			189.94	152.01	120.59	101.22	94.81	• 958
• 450		208.08	176.82	140.43	110.51	92.18	86.15	• 988
•475	206.56	194.49	164.48	129.59	101.18	83.88	78.22	1.018
•500				119.47	92.55	76.27	70.96	1.047
•525				110.01	84.58	69.30		1.076
•550				101.19	77.22	62.91		1.104
•575				92.98	70.43	57.05		1.132
• 6 0.0				85.34	64.18	51.70		
•625				78.24		46.79		1.186
•650				71.65	53.13	42.31		1.213
•675				65.54		38.21		1.240
•70.0					43.78	34.48		1.266
•725				54.64		31.07		1.292
	91.63		68.01	49.80		27.96		1.318
-	84.40			45.32		25.12		
• 80 O		71.55	56.97	41.20	29.30	22.54		1.369
•825	71 • 29	65.62	52.04	37.39	26.40	20.21	18.31	1.395
•850		60.09	47.45	33.89	23.76	18.12	16.43	1.420
.875	59.86	54.94	43.21	30.67	21.35	16.28	14.79	1.445
• 900	54.73	50.16	39.29	27.72	19.17	14.67	13-40	1.471
• 925	49.95	45.72	35.66	25.00	17.23	13.30	12.24	1.496
• 95 0		41.60	32.32	22.51	15.52	12.17	11.32	1.521
• 975	-	37.78	29.24	20.24	14.04	11.27	10.62	1.546
1.0000	37.58	34.26	26.40	18.20	12.79	10.59	10.16	1.571

MAC	H NO = 2	5.00	SPHI	ERE	ANG	LE OF AT	TACK = 10	• 0 0
1140	-				01.415	ANGLES		
		P / P	FREE-ST	REAM AT	PLANE	150 •	180.	SIRN
L/RN	0 •	30•	61.	90•	120.	750 •	1004	<del>-</del> -
LYKN	•				10	976 4 N	776.10	.000
0 000	776.10	776.10					661.82	.224
		793.03			695.33		596.04	.318
.025	785.66		734.61		•••	607.54	540.89	.390
.050	761.15		700.71	643.93	590.73	553.87	492.64	.451
.075	733.40		666.22		546.02	506.65	492.09	•505
.100			632.03	565.71	505.11	463.80	449.45	•555
.125	703.98		598.37	529.55	466.97	425.91	411.40	.501
.150	673.78	621.77	565.45	495-14	431.71	388.00	373.44	.644
.175	643.35		533.63	462.43	397.21	355.46	340.96	
.200	613.02		502.91	431.49	366.94	325,44	311.22	.684
- 225	582.97	560.52	473.10	401.30	338.43	297.83	284-00	.723
.250	553.36	530.96	444.61	373.06	311.89	272.44	259.06	.760
.275	524.59	502.17	418.69	346.83	287.20	249.08	235.21	.795
.300	496.39	474.06		322-07	264.25	227.58	215.26	.830
•325	468.95	447.01	389.48	298.74	242.95	207.81	196.07	.863
.350	442.49	422.19	364.51	276.81	223.17	189.64	178.48	• 896
. 375	418.31	394.04	340.58	256.21	204.82	172.94	162.36	.927
.400	390.59	370.01	317.79	520 • 51	187.83	157.58	147.59	• 95 <i>8</i> :
.425	366.91	34677	296.15	236.90	172.10	143.48	134.07	.988
.450	344.05	324.51	275.65	218.81	157.53	130.54	121.70	1.018
.475	322.14	303.26	256 • 24	201.88	15/055	118.68	110.39	1.047
500	301.19	283.02	237.91	186.07	144,06	107.80	100.05	1.076
•525	281.23	263.78	220.62	171.32	131.63	97.83	90.60	1.104
.550	262.22	245.53	204.34	157-55	120.15	88.71	81.97	1.132
.575	244.18	228.23	189.03	144.73	109.57	80.35	74.09	1.159
.600	227.06	211.87	174.65	132 - 81	99.82		66.90	1.186
.625	210.85	196.42	161.16	121.73	90.85	72.72	60.35	1.213
	195.54	181.87	148.52	111.46	82.59	65.74	54.37	1.240
.650	181.09	168.16	136.71	101.93	75.00	59.36	48.94	1.266
•675	167.48	155.26	125.67	93.11	68.03	53.53	43.99	1.292
.700		143.16	115.38	84.94	61.62	48.23	39,49	1.318
.725		131.83	105.79	77 • 40	55.76	43:-40		1.344
.750		121.22	96.87	70-42	50.39	38.99		1.369
•775		111.31	88.58	64.00	45.47	34.97	31.67	1.395
-800			80.88	58-08	40.98	31.32		1.420
.825			73.75		36.87	28.04		
.850			67.14		33.10	25.12		1.445
<b>+875</b>			61.03		29.69	22-57		1.471
.900					26.63	20.36		1.496
•925						18.52		1.521
•950						17.02	15.92	1.546
•979						15.86	15.08	1.571
1.000	58.38	53.19	40.70	, _0.420				

M.	ACH NO =	30.00	SI	PHERE	AN	GLE OF	ATTACK =	10.00
							_	
				STREAM A				
L/RN	0.	30•	60.	90•	120.	150.	180.	SZRN
				1117.38				
				1051.02				-224
				987.56			857.96	.318
				926.97			778.46	
				869.29		729.08		
				814.24		667.29		
•150	969.98		861.31				590.94	
•175	926.14					558.33		•601
.200	882.43	850.58			571.68	511.38		
•225	839.12	806.75			527.92	468-12		
•250	796.44	764.15			486.84	428.37		
•275	754.97			536.75		391.82		
.300	714.29		601.37		413.07	358.18		
• 325	674.72		560.48		380.04	327.24		
•350	636.55		524.42		349.36	298.78		
•375	600.82		489.93		320.88	272.62		-
.400	562.09		457.09		294.48	248.58	-	
•425	527.89	- '	425.95			226.48		
•450	494.93		396.44			206.20		• 988
-475	463.35		368.50			187-58		
-500	433.20		342.11	-		170.51		
•525	404.48		317.21			154.85		
•550	377.12		293.77			140.52		
•575	351.13		271.74		157.40	127.40		
.600	326.48		251.05			115.39		
.625	303.15		231,63		130.47		96.04	
•650	281.11		213.45				86.62	-
•675	260.32		196.45			85.•20 76.84		
•700 •725	240.72		180.57 165.76			-		
.750	204.97		151.97		80.02			
.775	188.74		139.14		72.31	62•27 55•93		
.800	173.54	159.90	127.22	91.86	65.25	50.•14		
.825		146.60				44.92		1.395
•85 B	146.06	134.20	105.88	75.53	52.86	4029	36.54	1.420
•875	133.7.0	122.67	96.39	68.32	47.46	36.22	32.97	1.445
-900	122.18	111.94	87.60	61.72	42.62	32.71	29.95	1.471
•925	111.48	101.99		55.64	38.32	29.76	27.49	1.496
950	101.54	92.75	72.01	50.05	34.56	2735		1.521
•975	92.32	84.23	65.12	44.99	31.34	25.49		1.546
1.000		76.34	58.78	40.45	28.65	24.16		1.571
7 4 2 4 0	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	, , , , ,		10 4 10	23407	~ 4.47 O	-000	T 4-7 1- T

CONE ANGLE = 5.00 ANGLE OF ATTACK = 0.00

		P / F	P FREE-SI	TREAM AT	MACH NO.	•		
L/RN	3.5	S/RN	L/RN	5.0	SZRN	L/RN	10.5	SIBN
							4 004	
• 91.3	1.291	1.484	-•.913	2.122	1.484	•913	6.984	1.484
• 96 9	1.240	1.539	. 972	2.026	1.543	• 366	6.645	1.537
1.028	1.277	1.599	1.037	2.076	1.608	1.029	6.753	1.600
1.092	1.296	1.663	1.107	2.085	1.679	1.102	6.786	1.673
1.233	1.306	1.805	1.267	2.051	1.839	1.284	6.432	1.856
1.311	1.305	1.883	1.357	2.027	1.929	1.493	6.121	2.166
1.483	1.299	2.056	1.559	1.972	2.132	1.607	5.955	2.181
1.677	1.289	2.250	1.573	1.941	2.246	1.851	5.606	2.436
1.783	1.284	2.357	1925	1.874	2.501	2.002	5.425	2.577
2.015	1.269	2.590	2.067	1.837		2.315		2.991
2.141	1.259	2.716	2.380	1.760	2.956	2.677	4.679	3.255
2.415	1-240	2.991	2.552	1.721	3.129	2.880	4.492	3.458
2.563	1.231	3.140	2.932	1.644	3.510	3.323	4.133	3.903
2.883	1.213	3.462	3.139	1.606	3.719	3.563	3.963	4.144 4.566
3 • 237	1.194	3.816	3.592	1.535	4.173	4.083	3.646	
3.427	1.184	4.007	3.838	1.502	4.420	4.657	3.359	5.242 5.551
3.833	1.155	4.415	4.369	1.442	4.953	4.965	3.228	
4.051	1.157	4.634	4.656	1.415	5.241	5.625	2.991	6.213
4.515	1.144	5.099	5.271	1.367	5.859	5.977	2.884	6.567
4.762	1.139	5.347	5.601	1.346	6.190	6.726	2.693	7.319
5.288	1.131	5.875	6.305	1.311	6.896	7.537	2.529	8.133
5.856	1.125	6.446	6.680	1.296	7273	7.965	2.456	8.563
6.157	1.123	6.748	7477	1.271	8.073	8.87J	2.328	9.471
6.795	1.120	7.388	7-900	1.262	8.497	19.346	2.271	9.349
7.131	1.119	7.726	8.794	1.245	9.395	10.346	2.170	±0.953
7.841	1.119	8.439	9.267	1.241	9.869	11.410	2.085	1-2-321
8.216	1.119	8.814	10.263	1.233	10.869	11.966	2.048	12.579
9.004	1.122	9.605	1-0787	1.231	11.395	13.127	1.983	13.745 14.352
9.847	1.125	10.451	11.889	1.229	12.501	13.732	1.955	15.615
17.289	1.127	10.895	12.467	1.229	13.082	14.990	1.956	15.943
11.219	1.131	11.829	13.689	1.232	14.299	16.314	1.866	17.532
11.706	1.133	12.318	14.315	1.234	14.937	17.000	1.849	19.060
12.727	1.138	13.343	15.644	1.240	16.271	18.422	1.820 1.799	20.554
13.267	1.141	13.885	16.338	1.243	16.968	19.911	1.790	21.327
14.382		15.005	17.789	1.251	18.424	20.681		22.923
15.572	1.151	16.198	18.545	1.255	19.183	22.270	1.778	23.746
16.193	1.153	16.822	20.123	1.264	20.767	23.091	1.774	25.446
17.492	1.158	18.126	20.945	1.269	21.592	24.784	1.769	-
18-176	1.160	18.896	22.656	1.278	23.310	26.547	1.769 1.770	27 <u>.21</u> 6 28.128
19.585	1.164	28.227	23.546	1.282	24.204	27.456		3.0 • 6.0 d
20.324	1.166	20.969	25.398	1.291	26.062	29.335	1.776	30.978
21.864	1.170	22.515	26.4369	1.296	27.028	30.295	1.783	32.973
23-493	1.173	24.150	28.359	1.384	29.035	32.283	1.791	35.150
24.341	1.175	25.001	29.397	1.308	30.076	34.352	1.875	36.129
26.109	1.178	26.775	31.551	1.316	32.239	35.417	1.813	3.0 + 1.4 9

CONE ANGLE = 5.00 ANGLE OF ATTACK = 0.00

		P /	P FREE-S	TREAM AT	MACH NO	•		
L/RN	3.5	S/RN	L/RN	5.0	S/RN	L/RN	<b>10•</b> 0	SZRN
27.029	1.179	27.699	32.669	1.319	33.360	37.614	1.831	38.325
28.945	1.182	29.623	34.986	1.326	35.687	38.746	1.840	39.461
29.942	1.183	30.624	36.187	1.329	36.892	41.081	1.861	41.805
32.018	1.185	32.707	38.676	1.335	39.391	43.514	1.883	44.248
34.205	1.187	34.903	39.966	1.338	48.686	44.770	1.894	45.508
35.342	1.187	36.045	42.636	1.343	43.366	47.362	1.918	48.110
37.707	1.189	38.418	44.019	1.345	44.754	48.701	1.930	49.454
38.936	1.190	39.652	46.880	1.349	47.626	51.468	1.954	52.232
41.491	1.191	42.217	48.361	1.351	49.112	54.362	1.978	55.137
42.818	1.192	43.549	51.424	1.354	52.187	55.858	1.990	56.639
45.576	1.193	46.317	53.007	1.356	53,777	58.956	2.014	59.748
48.477	1.194	49.229	56.283	1.359	57.065	60.559	2.025	61.358
49.983	1.194	50.741	57.976	1.360	58.764	63.880	2.048	64.692
53.110	1.195	53.880	61.475	1.363	62.277	67.362	2.069	68.187
54.734	1.196	55.510	63.283	1.364	64.092	69.166	2.079	69.998
58.104	1.196	58.893	67.019	1.366	67.842	72.907	2.099	73.753
59.852	1.197	60.648	68.949	1.367	69.779	76.832	2.117	7-7.693
63.482	1.197	64.292	72.935	1.369	73.780	78,867	2.126	79.735
67.294	1.198	68.119	74.993	1.370	75.846	83.087	2.142	83.972
69.272	1.198	70.104	79.242	1.371	80.112	85.275	2-150	86.168
73.374	1.199	74.222	81.435	1.372	32.314	89.802	2.164	90.712
75.502	1.199	76.357	85.963	1.374	86.859		2.177	95.389
79.915	1.199	80.787	88.300	1.374	89.204	96.834	2.183	97.771
82.203	1.199	63.084	93.122	1.375		10-1-667	2.194	
86.947	1.200	87.847	95.609	1.376		104.127	2.199	105.392
91.926	1.200		100.742		101.694			110.119
94.507	1.200		103.389		104.351			115.263
99.857		100.806				116.865		11-7-879
102.629		163.589			112.659			123-199
198.377		109.358			118.489			125.984
111.355		112.347			121.494			131.403 137.322
117.527		118.543			127.692			139.877
123.999		125.848			130.886			145.679
127.352		128.405			140.866			148.626
134.299		135.380			147.863			154.514
137.898 145.355		138.992 146.477			151.469			160.730
-		150.354			158.900			163.836
149.216 157.217		158.385			162.729			170.149
165.603		166.803			170.620			173.357
169.945		171.161			174.685			179.880
178.940		180.191				185.274		186.549
183.598		134.866				188.654		189.942
193.246		194.551				195.533		196.847
203.354			204.172			202.581		263.922
F2 0 4 0 7 4	** 500	_0.0000						

CONE ANGLE = 5.00 ANGLE	OF	ATTACK	=	0.00	
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		0 / P	FRFF-ST	REAM AT	MACH NO.			C / DN:
	45.0	SZRN	L/RN	20.0	S/RN	L/RN	25.0	SZRN
L/RN	15.0	371010	27 ////					4 1. Q I.
- 4 -	45 088	1.484	.913	26.431	1.484	.913	41.009	1.484
.913	15.088	1.536		25.478	1.596	1.025	39.520	1.596
.965	14.345	1.597	1.096	25.249	1.667	1.177	38.326	1.749
1.026	14.555		1.272	24.098	1.844	1.369	36.351	1.941
1.181	14.137	1.75-3	1.588	22.121	2.161	1.706	33.143	2.280
1.375	13.437	1.947	1.837	20.689	2.411	2.121	29.667	2.696
1.593	12.689	2.167	2.124	19.194	2.700	2.453	27.279	3.036
1.844	11.888	2.418		16.901	3.221	3.042	23.781	3.621
2.132	11.051	2.707	2.643	15.426	3.628	3.734	20.618	4.316
2.466	10.197	3.043	3.049	14.049	4.081	4.256	18.717	4.846
2.852	9.344	3.430	3.501	12.182	4.853	5.136	16.217	5.723
3.284	8.539	3.864	4.270	11.085	5.432	5.788	14.785	6.377
3.765	7.792	4.346	4.846		6.064	6.868	12.962	7.461
4.296	7.107	4.880	5.475	10.111	7.115	8.071	11.479	8.569
4.880	6.491	5.466	6.523	8.868	7.884	8.941	10.651	9.542
5.518	5.945	6.106	7.289	8.170		1G.347	9.607	10.954
5.858	5.698	6.447	8.112	7.564	8.710	11.872	8.756	12.484
6.580	5.252	7.17.2	9.450	6.802	10.053	12.953	8.277	13.569
7.359	4.864	7.954	10.410	6.377	11.017	14.667	7.666	15.290
8.196	4.528	8.794	11.425	6.007	12.036	14.007	7.318	16.498
9.090	4.239	9.692	12.493	5.684	13.108	15.870	6.872	18.397
10.042	3.989	10.648	14.192	5.275	14.814	17.762	6.500	20.397
11.051	3.772	11.661	15.389	5.044	16.015	19.754	6.287	21.784
12.117	3.585	12.731	16.634	4.841	17.265	21.136		23.941
13.239	3.423	13.857	18.593	4.582	19.231	23.284	6.013	26.185
	3.283	15.038	19.956	4.436	20.600	25.521	5.785	27.728
14.416	3.161	16.274	21.365	4.307	22.014	27.058	5.654	30.108
15.647	3.056	17.564	23.560	4.143	24.217	29.429	5.488	31.73.6
15.932	2.965	18.967	25.076	4.051	25.739	31.051	5.393	34.237
18.27-0	2.886	20.302	26.632	3.972	27.301	33.542	5.275	34.43:1
19.660		21.748	29.040	3.872	29.719	36.098	5.180	36.893
21.101		22.49.6	30.693	3.818	31.377	37.835	5.130	38.547
21.84.0		24.012	32.381	3.772	33.072	40.488		41.209
23.355		25.582	34.979		35.680	43.191		43.923
24.920		27.201	36.752		37.460	45.019		45.759
26.533		28.868	38.557	3.673	39.271	47.797		48.546
28.193	2.630		41.320	3.655	42.046	50.612	5.005	51.372
29.900		30.582	43.199	3.651		52.507	5.016	53.275
31.654		32.342	45.105			55.375		56.154
33.453		34.148				57.302		58.288
35.297		36.000	47.837			60.211	5.114	61.009
37.187		37.896	49.983			63.141		63.950
39.12:		39.838	51.976			65.104		65.920
41.10	2.588	41.824	53.993			68.061		68.889
43.12	3 2.601	43.855	57.059					71.870
45.19	1 2.617	45.931	59.130				~	73.863
47.30	4 2.636	48.652	61.221	3.829	7 02 • 022			

CONE ANGLE = 5.00 ANGLE OF ATTACK = 0.00

		P /	P FREE-ST	REAM AT	MACH NO	•		
L/RN	15.0	SZRN	L/RN	20.0	SZRN	L/RN	25.0	SZRN
48.377	2.647	49.129	64.394	3.889	65.208	76.003	5.523	76.860
52.558	2.672	51.318	66.534	3.932	67.355	77.998	5.588	78.863
52.785	2.699	53.554	68.692	3.978	69.522	80.995	5.692	81-872
55.058	2.728	55.836	71.964	4.052	72.807	83.997	5.799	84.886
57.380	2.760	58.166	74.168	4.103	75.019	86.001	5.873	06.897
59.750	2.794	60.545	76.390	4.156	77.249	89.009	5.987	89.917
62.170	2.829	62.974	79.756	4.238	80.628	92.020	6.103	92.938
64.641	2.866	65.455	82.022	4.294	82.902	94.027	6.181	94.954
67.164	2.904	6-7 988	84.305	4.350	85.194	97.040	6.300	97.978
69.742	2.943	70.576	86.606	4.407	87.504	99.048	6.379	99.994
72.375	2.982	73.219	90.089	4.493		102.061	6.498	
75.065	3.021	75.919	92.413	4.550		105.074		106.342
77.813	3.063	78.678	94.75%	4.607		107.982		108.958
80.622	3.099	81.497	98.367	4.692		110.093		111.981
83.492	3.137		100.771		101.723			114.103
84.950	3.156		103.191	4.801		115.110		116.117
87.915	3.193	-	106.853		107.829			119.138
91.945	3.228	and the second second	109.316			121.129	-	122-159
94.040	3.263		111.795		112.789			124.173
97.203	3.296		115.544		116.552			127.194 129.210
100.435		101.385				128.153 131.167		132.236
103.735		104.698			121.629 125.481			135.267
107.105		108.081				136.204		137.291
117.546		111-536 115-062			130.677			140.336
114.059		118.660			134.623			143.394
117.644		122-332			137.277			145.442
121.302 125.034		126.079			139.954			148.530
128.841		129.900			142.652			150.601
132.725		133.799			146.748			153.733
134.695		135.777			149.513			156.898
138.697		139.794			152.309			159.030
142.779		143.892			156.569		8.261	162.266
146.947		148.076			159.459		8.310	165.552
151.205		152.350		5.649	162.393	166.571	8.339	167775
155.559		156.721		5.681	166.888	169.945	8.379	171.161
169.018		161.196		5.700	169.953	172.232		173.457
164.589		165.785		5.718	173.080	175.726		176.964
169.286	3.681	170.500	176.654		177-896			180.554
174.121		175.354			181-197			182.996
179.109		180.360			184.579			186.741
184.263		185.534			189.811			190-590
189.600			192.114		193.415			193.218
195.135			195.802		-	195.945		197-261
200.884	3.731	202.219	201.532	5.782	202.869	200.101	8.448	201.433

CONE ANGLE = 5.00 ANGLE OF ATTACK = 9.00

P / P FREE-STREAM AT MACH NO.

```
L/RN
           ₹0.0
                    S/RN
  .913
         58.834
                   1.484
 1.025
         56.687
                   1.596
 1.176
         54.961
                   1.748
 1.473
         50.622
                   2.045
 1.833
         45.843
                   2.407
 2.279
         40.754
                   2.854
 2.832
         35.620
                   3.410
 3.487
         30.901
                   4.057
 4.249
         26.706
                   4.833
 5.125
         23.104
                   5.712
 5.775
         21.040
                   6.365
 6.851
         18.410
                   7.444
 8.048
         16.269
                   8.546
 9.367
         14.532
                   9.970
10.804
         13.121
                  11.413
12.358
         11.967
                  12.972
14.023
         11.018
                 14.644
15.795
         10.233
                 16.423
17.67-0
          9.580
                 18.394
19.642
          9.033
                 20.284
          8.719
21.008
                 21.656
23.132
          8.311
                 23.787
25.339
          7.968
                 26.003
27.625
          7.680
                 28.297
29.983
          7.438
                 30.655
32.409
          7.237
                 33.100
34.896
          7.070
                 35.596
37.439
          6.934
                 38.149
40.032
          6.827
                 40.752
42.659
          6.746
                 43.399
44.449
          6.705
                 45.186
47.148
          6.652
                 47.895
49.875
          6.640
                 50.634
52.629
          6.637
                 53.397
55.402
          6.652
                 56.181
58.191
          6.684
                 58.980
60.991
          6.730
                 61.791
67.798
          6.791
                 64.609
65.610
          6.865
                 67.432
69.423
          6.951
                 70.255
71.298
          7.014
                 72.137
74.107
          7.117
                 74.957
76.911
         7.230
                 77.772
79.707
          7.350
                 80.579
82.495
          7.479
                 83.378
```

#### NSHC/HOL/TR 75-45

CONE ANGLE = 5.00 ANGLE OF ATTACK = 0.00

P / P FREE-STREAM AT MACH NO.

```
L/RN
           30.0
                    SIRN
          7.614
                 85.166
85.273
          7.754
                 88.943
88.039
90.793
          7.900
                  91.707
                  94.459
93.534
          8.049
          8.202
                  97.196
96.261
                  99.013
          8.306
98-071
          8.463 101.726
100.774
          8.621 104.424
103.462
          8.780 107.108
106.135
          8.939 109.775
105.793
          9.097 112.428
111.435
          9.255 115.066
114.063
          9.411 117.689
116.676
          9.565 120,298
119.275
          9.716 122.894
121.861
          9.815 124.617
123.578
          9.962 127.192
126.143
         10.105 129.756
128-697
131.242
         10.244 132.311
         10.379 134.857
133.779
         10.510 137.398
136.310
         10.636 139.935
138.837
         10.757 142.469
141.362
         10.874 145.005
143.888
         10.985 147.544
146.418
         11.056 149.241
148.108
          11.157 151.793
150.650
          11.253 154.356
153.204
          11.342 156.935
155.773
          11.425 159.533
158.361
          11.501 162.153
160.971
          11.569 164.800
163.607
          11.630 167.476
166.273
          11.683 170.186
168.973
171-711
          11.727 172.934
173.559
          11.752 174.789
          11.781 177.609
176.368
          11.802 180.478
179.226
          11.814 183.400
182.138
          11.817 186.381
185.107
          11.812 189.424
188.138
191.237
          11.800 192.535
          11.782 195.719
194.410
197.661
          11.758 198.983
          11.729 202.332
200.997
```

CONE ANGLE = 6.00 ANGLE OF ATTACK = 0.00

		P /	P FREE-ST	Γ⊋FΔM AT	MACH- NO			
L/RN	3.5	SZRN	L/RN	5.0	S/RN	L/RN	10.0	S/RN
	200	37 (11	Er Kill	J. 0	27 1111		10.0	37 1114
.895	1,372	1.466	.895	2.266	1.466	.895	7.495	1.466
.950	1.319	1.521	.952	2.166	1.523	.947	7.141	1.518
1.008	1.357	1.579	1.016	2.218	1.587	1.007	7.250	1.579
1.071	1.376	1.642	1.084	2.226	1.656	1.161	7.065	1.733
1.208		1.781	1.239	2.190	1.811	1.349	6.749	1.922
	1.386							
1.365	1.381	1.938	1.420	2.135	1.993	1.562	6.497	2.136
1.450	1.377	2.024	1.521	2.105	2.095	1.803	6.041	2.379
1.639	1.366	2.213	1.748	2.038	2.323	1.936	5.851	2.513
1.850	1.352	2.426	1.874	2.001	2.450	2.233	5.462	2.811
1.965	1.344	2.542	2.153	1.922	2.731	2.574	5.069	3.154
2.215	1.324	2.793	2.472	1.840	3.051	2.959	4.69i	
2.493	1.303	3.072	2.647	1.800	3.227		4.338	
2.642	1.293	3.223	3.030	1.721	3.612	3.858	4.013	
2.965	1.273	3.547	3.458	1.648	4.043	4.375	3.720	4.965
3.319	1.252	3.903	3.690	1.614	4.276	4.651	3.586	5.243
3.509	1.243	4.194	4.190	1.552	4.779	5.240	3.343	5.835
3.914	1.226	4.501	4,459	1.525	5.049	5.878	3.131	6.476
4.354	1.213	4.944	5.036	1.476	5.629	6.565	2.949	7.167
4.588	1.208	5.179	5.665	1.436	6.262	7.302	2.793	7.998
5.085	1.199	5.679	6.000	1.419	6.598	8.389	2.660	8.700
5.62?	1.193	6.218	6.711	1.392	7.313	8.926	2.548	9.541
5.905	1.191	6.503	7.087	1.380	7.692	9.364	2.498	9.981
6.504	1.188	7.105	7.882	1.363	8.491	10.275	2.411	10.897
6.819	1.188	7.422	8.736	1.351	9.350	11.235	2.339	11.363
7.484	1.188	8.091	9.185	1.348	9.801	12.244	2.278	12.878
8.195	1.196	8.805	10.128	1.343	10.749	13.302	2.229	13.941
8.568	1.191	9.181	11.132	1.343	11.759	14.467	2.189	15.352
9.351	1.195	9.968	11.657	1.343	12.287	15.559	2.158	16.218
10.185		10.807						
	1.199		12.756	1.348	13.392	16.153	2.146	16.807
10.621	1.202	11.246	13.330	1.350	13.969	17.375	2.126	18.336
11.535	1.207	12.164	14.526	1.358	15.172	18.644	2.113	19.312
12.505	1.212	13.139	15.790	1.366	16.443	19.960	2.105	20.635
13.011	1. 215	13.648	16.448	1.371	17.1-04	21.321	2.163	22.005
14.068	1.220	14.712	17.816	1.381	18.480	22.730	2.106	23.421
15.187		15.837			19.927			
15.771	1.228	16.423	20.003	1.397	20.678	24.932	2.119	25.635
16.985	1. 233	17.646	21-553	1.408	22.237	26.460	2.132	27.171
18.270	1.238	18.936	22.357	1.413	23.045	28.037	2.148	28.757
18.938	1.240	19.608	24.022	1.423	24.720	29.664	2.167	30.393
23.329	1.244	21.006	25.767	1.433	26.475	31.344	2.189	32.982
21.794	1.248	22.480	26.670	1.438	27.383	33.076	2.213	33.824
22.556	1.250	23.246	28.539	1.446	29.262	34.865	2.239	35.622
24.139	1.253	24.838	29.505	1.458	30.233	35.780	2.252	36.543
25.806	1.256	26.514	31.502	1.458	32.242	37.655	2.280	38.429
26.671	1.258	27.384	33.589	1.465	34.339	39.592	2.308	40.376
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# NSHC/HOL/TR 75-45

CONE ANGLE =	6.03	ANGLE	0F	ATTACK	=	8.60
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		P / P	FREE-ST	REAM AT	MACH NO.			S/RN
4.401	3.5	S/RN	L/RN	5.0	S/RN	L/RN	10.0	21 KM
L/RN	349	27 1511						
	4 26 13	29.191	34.666		35.423	41.593	2.337	42.387
28.468		30.128	36.891	1.474	37.659	43.660	2.366	44.466
29.401		32.075	39.211	1.480	39.992	45.797	2.395	46.615
31.336	<b>-</b> • ·	34.119	40.408	1.482	41.196	46.893	2.409	47.717
33.369	<del>-</del> ·	35.179	42.877	1.487	43.679	49.141	2.437	49.977
34.424	1.267		44.150	1.489	44.959	51.467	2.464	52.316
36.610	1.268	37.377	46.774	1.493	47.598	53.873	2.491	54.736
38.904	1.270	39.684	49.507	1.497	50.345	56.364	2.515	57.240
40.093	1.271	40.880	50.914	1.498	51.761	58.943	2.539	59.833
42.558	1.272	43.358	53.815	1.501	54.677	61.612	2.561	62.517
45.141	1,273	45.955	55.308	1.503	56.178	62.951	2.572	63.894
46.479	1.274	47.301		1.505	59.271	65.792	2.592	66.720
49.251	1.275	50.088	58.384	1.508	62.487	68.702	2.611	69.646
52.155	1.276	53.008	61.582	1.509	64.141	71.713	2.629	72.674
53.658	1.276	54.519	63.227	1.511	67.547	74.829	2.645	75.806
56.771	1.277	57.649	66.615		71.086	78.051	2.660	79.947
60.029	1.278	60.926	70.134	1.513	72.906	81.384	2.674	82.398
51.716	1-278	62.621	71.944	1.514	76.650	83.093	2.681	84.116
65.206	1.279	66.131	75.668	1.515	78.576	86.596	2.694	87.639
68.858	1279	69.803	77.583	1.516	82.536	90.217	2.706	91.279
70.747	1.280	71.703	81.521	1.517			2.716	95.:32
74.656	1.280	75.633	85.609	1.519	86.647		2.727	98.853
78.745	1.281	79.744	87.711	1.519			2.736	10:2.735
89.859	1.281	81.870	92.031	1.520		101.610 105.533	2.744	106.680
85.232	1.281	86.267	96.513	1.521	97.610	_	2.748	108.677
87.493	1.281	88.540	98.816	1.522			2.756	112.722
92.168	1.282	93.241	103.550	1.523	104.000	111.542	2.763	116.838
97.056	1,282	98.156	105.983	1.523	107.132	115.635	2.769	121.329
99.582	1.282	100.696	110.981	1.524	112.158	119.803	2 774	125.301
104.805	1.283	105.948	116.164	1.525	117.369	124.052	2 780	129.559
119.264	1.283	111.437	118.826	1.525	120.046	128.387	2-1-00	134.112
113.085	1.283	114.274	124.296	1-,526	125.546	132.815	2 786	136.375
118.917	1.283	120.137	127.105	1.526	128.371	135.066	2:700	140.981
125.010	1.283	126.264	132-877	1.527	134.175	139.646	2.793	
128.158	1.284	129.429	138.850	1.527	140.191	144.337		150.532
134.665	1.284	135.972	141.933	1.528	143.280	149.145	2.770	155.491
	1.284	142.807	148.245	1.528	149.628	154.976	2.170	150.471
141.462	1.284	146.338	154.788	1.528	156.206	159.137	2.000	160.579
144.974	1.284	153.635	158.148	1.529	159.585	164.333	2.001	165.804
152.231	1,284	161.257	165.052	1. 529	166.527	166.984	2.801	168.469
159.811	1, 285	165-194	168.598	1.529	178.093	172.394	2.802	173.309
163.727	1 285	173.330	175.884	1.530	177.419	177.952	2.802	179.498
171.818	4 202	181.828	183.438	1.530	185.014	183.665	2.802	185.242
189.269	1.4407	186.217	187.318	1.4530	188,915	189.537	2.801	191.146
184.634	1 4 20 5	105 286	195,292	1.530	196.934	4 195.573		197.216
193.654	1.207	200 75	3 203.561		205.241	8 201.780	2.801	203.457
203-074	1.402	E040124						

CONE ANGLE = 6.00	ANGLE OF ATTACK = 3.00
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		- 4 -	COCC_ST	REAM AT	MACH NO.			
		6 / b	L/RN	20.0	SZRN	L/RN	25.0	S/RN
L/RN	15.0	S/RN	LYKN	2010				
			905	28.406	1.466		44.099	1.466
.895	16.208	1.456		27.395	1.575	1.071	42.111	1.643
1.005	15.644	1.575		26.588	1.723	1.239	48.200	1.812
1.073	15.510	1.645	1.151	24.567	2.009	1.541	36.930	2.115
1.339	14.460	1.912		22.341	2.355		32.114	2.625
1.548	13.672	2.122	1.780	19.972	2.781	2.532	28.378	3.111
1.786	12.838	2.361	2.203		3.299	3.102	24.900	3.684
2.211	11.504	2.789	2.718	17.615	3.692	3.761	21.777	4.348
2.547	10.610	3.127	3.109	16.153	4.359	4.789	18.243	5.382
2.923	9.760	3.505	3.773	14.153	5.123	5.675	1-6.087	6.27.2
3.562	8.589	4.148	4.532	12.412	5.986	6.660	14.315	7.262
4.042	7.886	4.630	5.390	13.948	6.950	8.124	12.453	8.735
4.565	7.253	5.156	6.349	9.742	8.014	9.333	11.359	9.950
5.436	6.435	6.031	7.408	8.760	9.178	10.631	10.469	11.255
6.073	5.973	6.672	8.565	7.964	10.006	12.015	9.740	12.646
6.757	5.571	7.359	9.389	7.520	11.326	13.983	8.958	14.626
7.868	5.066	8.477	10.702	6.959		15.546	8.508	16.197
8.665	4.786	9.278	12.102	6.503	12.735	17.176	8.129	17.836
9.507	4.544	10.125	13.586	6.131	14.227	19.447	7.727	20.120
10.850	4.242	11.475	15.149	5.828	15.798	21.217	7.489	21.900
11.797	4.074	12.428	16.784	5.582	17.443	23.039	7.296	23.731
12.785	3.929	13.422	18.489	5.382	19.156	24.907	7.143	25.610
14.341	3.749	14.986	19.661	5.272	20.335		6.989	28.179
15.425	3.650	16.075	21.470	5.134	22.154	27.462	6.908	30.148
16.545	3.566	17.202	23.335	5.027	24.629	29.423	6.852	32.148
18.290	3.463	18.957	25.252	4.946	25.957	31.413	6.812	34.856
19.496	3.408	20.169	27.217	4.888	27.932	34.102	6.868	36.911
20.733	3.364	21.413	29.225	4.850	29.952	36.146	6.822	38.983
22.648	3.314	23.338	31.273	4.830	32.011	38.207	6.855	41.267
23.961	3.291	24.659	32.657	4.826	33.403	40.280	6.925	43.860
25.303	3-,274	26.008	34.761	4.833	35.519	43.057		45.960
_	3.262	28.084	36.894	:4 854	37.663	45.146	6.995	48.362
27.368	3.262	29.502	39.052	4.888	39.833	47.236	7.079	50.163
28.778	3.266	31.945	41.232	4.935	42.025	49.325	7.177	
30.213	3.283	33.157	43.430	4.993	44.235	52.105	7.324	55.347
32.413	3.300	34.661	45.644	5.061	46.461	54.183	7.446	57.129
33.909	3.321	36.189	47.128	5.112	47.953	56.254	7.577	59.899
35.428		38.523	49.363	5.195	50.200	59.000	7.764	61.949
37.749		40.137	51.607	5.285	52.457	61.047	7.912	
39.324		41.712	53.860	5.382	54.722	63.083	8.065	63.996 66.031
40.921		44.163	56.118		56.993	65.107	8.222	00.001
43.355		45.817	58.381		59.269	67.786	8.437	68.725
45.004		47.496			61.548	69.780	8.600	70.739
46.673		50.052	62.161		63.070	71.761		72.722
49.215		51.784				74.383		
50.939		53.530	66.706			76.334	9.149	77.320
52.679	34160	709700						

CONE ANGLE = 6.00 ANGLE OF ATTACK = 0.00

		ρ/	P FREE-ST	TREAM AT	E MACH NO	١.		
L/RN	15.0	S/RN	L/QN	20.0	S/RN	L/RN	25.0	SZRN
			_,	2000	57 1111			5,
55.322	3.801	56.192	68.980	6.118	69.926	78.272	9.311	79,269
57.112	3.851	57.992	71.255	6.232	72.213	80.199	9.472	81.207
58.923	3.901	59.813	73.531	6.344	74.502	82.751	9.682	83.772
61.676	3.975	62.581	75.049	6.417	76.028	84.652	9.837	85.684
63.537	4.023	64.452	77.326	6.526	78.318	86.544	9.987	87.587
65.418	4.071	66.344	79.604	6.632	80.609	89.055	10.181	90.111
68.277	4.141	69.219	81.884	6.734	82.901	90.930	10.321	91.996
70.209	4.186	71.162	84.166	6.833	85.196	92.799	10.457	
72.162	4.230	73.125	86.452	6.928	87.494	94.665		
75.129	4.293	76.169	88.742	7.020	89.796		10.587	
77.133	4.334	78.124	90.272			97.151	10.752	98.252
79.158	4.373	80.160	92.573	7.078	91.335	99.016	10.869	
		83.254		7.163		100.884	18.988	
82.235 84.313	4.428	85.343		7.243	95.972	103.383	11.119	
	4.463			7.319		105.268	11.214	
86.413	4.496	87.455			100.661		11.303	
89.606	4.544		131.906		103.033		11.384	
91.764	4.574		104.289		105.429		11.480	
93.948	4.602		105.893		107.042		11.543	
97.273	4.642		108.326		109.488		11.598	
99.526		100.640			111.972		11.644	
101.811		102.937			114.497		11.691	
105.304		106.450			117.071			123.597
107.682		108.841			119.700			125.719
110.103		111.275			122.389			128.612
113.827		115.019			124.218			130.834
116.376		117.583			127.023			133.105
118.986		120.207			129.906		11.714	
123.024		124.268			132.874			138.620
125.807		127.066			135.936		11.658	
128.668		129.942			139.099			143.521
133.119		134.418			142.373		11.583	147.118
136.201		137.517			144.621		11.548	
139.382		140.715				151.244	11.512	
144.351		145.712		7.773	151.716	154.130	11.476	155.544
147.806		149.186		7.754	155.482	158.138	11.429	159.575
151.382	4.867	152.781	157.973	7.736	159.409	161.275	11.395	162.729
156.989		158.420		7.719	163.512	164.534	11.362	166.006
160.902	4.855	162.354	166.323	7.703	167.805	169.083	11.321	170.580
164.963		166.437		7.693	170.781	172.663	11.293	174.179
171.353		172.863			175.428	176.397	11.267	177.934
175.826		17-7.360			180.310	180.297	11.244	181.856
180.481		182.041		7.654	185.448	185.777	11.217	187.366
187.827		189.427		7.643	190.862		11.200	
192.936		194.564		7.634	196.572	194.657	11.186	196.295
200.833	4.832	202.505	200.929	7.627	202.602	201.067	11.170	202.740

CONE ANGLE = 6.00 ANGLE OF ATTACK = 0.00

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P / P FREE-STREAM AT MACH NO.
          30.0
                   SYRN
 L/PN
                  1.466
        63.263
 .895
                  1.642
        50.399
1.071
        56.120
                  1.906
1.333
        51.245
                  2-.228
1.653
                  2.775
2.197
        44.176
                  3.479
2.898
        37.210
                  4.110
        32.539
 3.525
                  5.097
4.507
        27.177
        23.869
                  5.952
5.356
                  7.244
        20.338
6.642
                   8.799
 8.099
        17.644
                  9.917
9.301
        16.059
        14.388
                 11.666
11.040
                 13.074
        13.394
12.440
                 15.071
14.426
        12.336
                 17.192
        11.514
16.536
                 18.857
        11.020
18.191
                 21.166
        10.492
20.487
        10.177
                  22. 957
22.269
                 25.416
          9.844
24.714
                 27.944
          9.594
27.228
          9.453
                 29.879
29.152
          9.319
                  32:.499
31.759
                  34.490
          9.256
33.739
                  37-170
          9.215
36.404
                  39.869
          9.221
39-088
                  41-900
          9.253
41.108
                  44.611
43.804
          9.331
          9.413
                  46.642
45: 824
          9.551
                  49.341
48.508
          9.719
                  52.025
51.177
          9.862
                  54.024
53.166
         10.974
                  56.670
55.797
                  59.289
58-402
         10.306
         10.492
                  61.234
69..336
         10.754
                  63.801
52.889
64.782
         10.959
                  65.795
         11.241
                  68.215
67-279
                  70.693
         11.532
69.743
                  72-529
         11.754
71-569
```

74.949

76.743

79.107

81.441

83.173

12.654

12.280

12.582

12.883

13.106

73.976

75.760

78.111

83.433

82-155

# NSHC/HOL/TR 75-45

CONE ANGLE = 6.00 ANGLE OF ATTACK = 6.00

P / P FREE-STREAM AT MACH NO.

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SIRN
          30.0
  L/RN
                 85.459
        13.400
84.428
                 87.156
        13.516
86.116
                 89.399
        13.899
88.347
        14.173
                 91.621
99.557
                 93.276
        14.372
92.202
                 95.458
         14.629
94.382
                 97.133
         14.814
96.009
                 99.275
         15.050
98.169
         15.272 101.441
100.322
         15.429 103.063
101.935
         15.626 105.225
104.086
         15.762 106.850
105.702
         15.929 109.023
107.853
         16.979 111.207
110.035
         16.178 112.855
111.675
          16.294 115.070
113.877
         16.389 117.309
115.103
         16.448 119.006
117.791
         16.508 121.297
120.070
          16.540 123.039
121.802
          16.565 125.397
124.147
          16.572 127.801
126.538
          16.566 129.637
128.365
          16.544 132.135
 130.848
          16.517 134.048
 132.751
          16.472 136.657
 135.345
          16.416 139.339
 133.013
          16.368 141.493
 140.066
          16.299 144.231
 142.879
           16.244 146.414
 145.050
           16.168 149.415
 148.034
           16.090 152.527
 151.128
           16.031 154.940
 153.529
           15.954 158.273
 156,843
           15.898 160.866
 159.422
           15.826 164.458
 162.995
           15.759 168.217
  166.733
           15.712 171.156
  169.656
           15.654 175.245
  173.723
           15.616 178.451
  175.911
           15.57-1 182.925
  181.369
           15.533 187.645
  186.055
           15.510 191.361
  189.750
           15.486 196.566
  194.926
           15.470 202.080
  200.411
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CONE ANGLE = 7.80 ANGLE OF ATTACK = 0.00

		p / p	FRFF-ST	REAM AT	MACH NO.			
L/RK	3.5	SZRN	L/RN	5.0	S/RN	L/RN	10.0	SZRN
	3,4,5	30 (1)						
.878	1.456	1.449	.878	2.418	1.449	.878	8.039	1.449
.931	1.401	1.502	.933	2.314	1.504	.985	7.779	1.557
.988	1.440	1.560	.995	2.367	1.566	1.054	7.724	1.626
1.114	1.468	1.686	1.133	2.360	1.706	1.221	7.419	1.794
1.183	1.470	1.756	1.211	2.336	1.784	1.412	7-075	1.987
1.335	1.465	1.909	1.386	2.278	1.960	1.628	6.703	2.264
1.507	1.454	2.082	1.589	2.212	2.164	1.873	6.310	2.451
1.700	1.441	2.277	1.822	2.137	2.400	2.153	5.903	2.733
1.805	1.433	2.383	1.952	2.097	2.530	2.644	5.302	3.227
2.034	1.414	2.613	2.237	2.012	2.818	3.015	4.930	3.601
2.287	1.391	2.868	2.560	1.926	3.144	3.422	4.585	4.312
2.568	1.369	3.151	2.924	1.845	3.510	3.868	4.270	4.461
2.718	1.358	3.303	3.121	1.807	3.708	4.354	3.988	4.05.3
3.042	1.337	3.629	3.548	1.736	4.138	4.879	3.739	5.479
3.396	1.317	3.985	4.019	1.673	4.613	5.444	3.523	6.248
3.781	1.301	4.373	4.536	1.619	5.134	6.367	3.253	6.978
3.986	1.294	4.580	4.812	1.596	5.412	7.032	3.105	7.649
4.421	1.282	5.018	5.399	1.556	6.004	7.736	2.980	8.358
4.891	1.274	5.492	6.035	1.525	6.644	8.480	2.874	9.107
5.397	1.268	6.002	6.720	1.502	7.334	9.261	2.786	9.895
5.664	1.266	6.271	7.081	1.493	7.698	19.080	2.712	10.720
6.227	1.263	6.837	7.841	1.480	8.464	10.935	2.652	11.581
5.828	1.263	7.444	8.652	1.472	9.281	11.826	2.603	12.478
7.471	1.255	8.091	9.515	1.469	16.150	13.226	2.549	1:3.889
7.808	1.256	8.430	9.966	1.469	10.604	14.292	2.524	14.872
8.514	1.270	9.142	10.908	1.472	11.554	15.210	2.506	15.888
9.264	1.274	9.898	11.904	1.478	12.557	16.250	2.496	16.936
10.060	1.280	10.699	12.954	1.485	13.615	17.322	2.492	18.716
13.476	1.283	11.118	13.500	1.491	14.165	18.424	2.494	19.127
11.343	1.289	11.992	14.634	1.502	15.308	19.558	2.500	20.268
12.261	1.295	12.917	15.826	1.513	16.508	21.314	2.519	22.138
12.739	1.298	13.398	16.443	1.519	17.130	22.523	2.537	23.256
13.734	1.304	14.401	17.722	1.531	18.419	23.763	2.558	24.505
14.784	1.310	15.459	19.060	1.544	19.767	25.032	2.582	25.784
15.890		16.573	20.459	1.556			2.608	27.195
15.464	1.318	17.152	21.182	1.562	21.905	27.665	2.637	28.436
17.659	1.323	18.355	22.675	1.573	23.409	29.028	2.668	29.810
18.914	1.327	19.620	24.232	1.584	24.978	30.424	2.700	31.216
23.234	1.332	20.949	25.855	1.594	26.613	32.586	2.751	33.388
20.918	1.334	21.639	26.691	1.598	27.455	34.068	2.765	34.879
22.337	1.337	23.069	28.414	1.607	29.191	35.575	2.819	36.496
23.826	1.341	24.569	30.206	1.615	30.997	37.126	2.854	37.969
25.387	1.344	26.142	32.070	1.623	32.874	38.714	2.888	39.569
26.196	1.346	26.956	33.028	1.626	33.840	40.341	2.921	41.208
27.870	1.348	28.643	35.001	1.632	35.827	42.006	2.954	42.886

CONE ANGLE = 7.00	ANGLE OF	ATTACK = 0.00
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		P /	P FREE-ST	TREAM AT	MACH NO	•		
L/RN	3.5	S/RN	L/RN	5.0	S/RN	L/RN	10.0	S/RN
29.624	1.351	30.410	37.048	1.638	37.890	44.589	3.000	45.479
31.459	1.353	32.260	39.172	1.643	40.038	46.347	3.030	47.259
32.409	1.354	33.216	40.264	1.645	41.130	48.157	3.058	49.282
34.374	1.356	35.196	42.507	1.650	43.390	50.010	3.085	50.949
36.428	1.358	37.266	44.832	1.654	45.732	51.907	3.110	52.861
38.577	1.359	39.430	47.240	1.658	48.159	53.850	3.134	54.818
39.687	1.360	40.549	48.477	1.659	49.404	55.838	3.157	56.821
41.982	1.361	42.861	51.015	1.662	51.962	58.908	3.188	59.915
44.379	1.362	45.276	53.642	1.665	54.609	61.015	3.207	62.637
46.883	1.364	47.799	56.361	1.668	57.349	63.172	3.225	64.210
48.176	1.364	49.101	57.756	1.669	58.754	65.379	3.242	66.434
59.847	1.365	51.792	60.617	1.671	61.636	67.639	3.258	68.711
5-3.634	1.366	54.601	63 <b>.576</b>	1.673	64.618	69.952	3.273	71.342
56.543	1.367	57.532	66.636	1.675	67.700	72.323	3.287	73.430
58.G45	1.367	59.045	68.204	1.676	69.280	74.753	3.301	75.878
61.145	1.368	62.168	71.420	1.678	72.520	78.519	3.319	79.672
64.378	1.368	65.425	74.743	1-679	75.868	81.117	3.330	82.290
66.046	1.369	67.106	76.446	1.680	77.584	83.792	3.340	84.985
69.489	1.369	70.574	79.937	1.681	81.191	86.552	3.350	87.766
73.078	1.370	74.191	83.543	1.683	84.734		3.359	90.639
75.820	1.370	77.960	87.269	1.684	88.488		3.366	93.613
7-8.749	1.371	79.905	89.178	1.684	90.411	95.412	3.373	96.692
82.731	1.371	83.916	93.089	1.685		100.130	3.382	101.446
86.879	1.372	88.096	97.130	1.686		103.362	3.386	
91.202	1.372		101.304	1.687	102.629			108.133
93.431	1.372		103.443		104.784			111.443
98.029	1.372		107.826		109.200			114.936
102.818	1.373				113.763			118.514
107.807		109.181		-	118.479			122.182
11-0.379		111.772			120-896			125.942
115.683		117.116			125.852			131.762
121.207		122.682			130.976			135.768
125.961		128.479			136.276			139.878
129.927		131.467			138.994			144.096
136.043		137.629			144.570			148.426 152.871
142.413		144.047			150.340			
149.048		150.731			156.312			157.435
152.468		154.177				162.727		164.513
159.521		161.282			165.668			169.791
166.867		168.684			172.184			174.483
174.518		176.393			178.932			179.552 184.843
178.463		180.367			182.397			190.278
186.598		188.564				188.300		195.364
195.073		197.102				193.845		204.535
203.903	1.375	205.998	202.445	1.693	204.530	202.45U	3.340	∠U4•909

CONE ANGLE = 7.00. ANGLE OF ATTACK = 0.00

		P /	P FREE+S	TREAM AT	MACH NO	•		
L/RN	15.0	S/RN	L/RN	20.0	· S/RN	L/RN	25.0	S/RN
.878	17.402	i.449	.878	30.510	1.449	.878	47.360	1.449
. 984	16.803	1.555	i.048	29.169	1.620	1.047	45.256	1.519
1.127	16.330	1.699	1.210	27.890	1.783	1.299	42.139	1.873
1.401	15.148	1.975	1.499	25.700	2.074	1.721	37.339	2.298
1.613	14.291	2.189	1.981	22.483	2.560	2.268	32.185	2.849
1.989	12.928	2.567	2.431	20.022	3.013	2-764	28.512	3.349
2.442	11.544	3.025	2.954	17.744	3.540	3.543	24.172	4.134
2.971	10.262	3.557	3.772	15.072	4.365	4.464	20.538	5.361
3.367	9.480	3.956	4.481	13.378	5.078	5.528	17.659	6.134
4.029	8,427	4.623	5.271	11.960	5.875	6.420	15.940	7.232
4.775	7.534	5.375	6.451	10.453	7.063	7.727	14.133	8.348
5.605	6.795	6.211	7.427	9.566	8.047	9.160	12.762	9.792
6.205	6.379	6.815	8.478	8.848	9.106	10.708	11.721	11.352
7.173	5.857	7.790	9.987	8.099	10.626	11.936	11.107	12.590
8.220	5.438	8.845	1.1.193	7.661	11.841	13.655	10.462	14.322
9.342	5.192	9.976	12.457	7.387	13.114	15.456	9.976	16.136
10.129	4.916	10.769	14.225	6.941	14.895	17.326	9.615	18.020
11.367	4.587	12.016	15.606	6.732	16.287	1:8.769	9-410	19.474
12.668	4.505	13.327	17.029	6.568	17.721	20.737	9.211	21,457
14.028	4.364	14.697	18.491	6.443	19.193	22.748	9.081	23.483
14.965	4.289	15.641	20.492	6.328	21.210	24.791	9.008	25.541
16.413	4.201	17.100	22.027	6.274	22.756	26.859	8.986	27.624
17.909	4.139	18.607	23.587	6.244	24.328	28.420	8.999	29.197
19.449	4099	20.159	25.700	6.237	26.457	30.510	9.053	31.303
20.499	4.083	21.217	27.305	6.253	28.073	32.603	9.145	33.411
22.105	4-074	22.835	28.923	5.287	29.704	34.691	9.273	35.516
23.746	4.080	24.488	31.096	6.356	31.894	3.6.252	9.389	37.988
25.420	4.100	26.174	32.735	6,425	33.544	38.321	9.569	39.173
26.552	4.120	27.315	34.377	6.507	35.199	49.373	9.776	41.240 43.287
30.021	4.160 4.209	29.050 30.810	36.569 38.212	6.635 6.744	37.408 39.063	42.405 43.914	10.004 10.188	44.808
31.198	4.248	31.996	39.853	6.862	40.716	45.905	10.448	46.813
32.983	4.313	33.794	42.033	7.031	42.913	47.870	10.720	48.793
34.787	4:385	35.612	43.662	7.166	44.554	49.839	11.002	50.747
36.610	4.463	37.449	45.284	7.306	46.188	51.246	11.219	52.194
37.834	4.518	38.682	47.434	7.498	48.354	53.139	11.512	54.192
39.684	4.604	49.546	49.037	7.646	49.979	55.007	11.807	55.984
41.548	4.694	42.424	50.632	7.794	51.576	56.850	12.102	57.841
43.425	4.786	44.315	52.218	7.944	53.174	58.670	12.394	59.675
44.684	4.848	45.584	54.320	8.142	55.292	60.021	12.611	61.036
46.583	4.941	47.496	55.886	8.289	56.870	61.804	12.894	62.832
43.493	5.034	49.421	57.445	8.434	58.440	63.569	13.170	64.610
50.414	5.125	51.357	59.512	8,623	60.523	65.318	13.436	66.372
51.702	5.185	52.654	61.055	8.760	62.077	66.620	13.629	67.584
53.641	5.273	54.608	62.592	8.894	63.626	68.346	13.876	69.424
_		- ' '			-			

CONE ANGLE = 7.09 ANGLE OF ATTACK = 2.09

		P /	P FREE-S	TREAM AT	MACH NO	).•		
L/RN	15.0	S/RN	·L/RN	20.0	S/RN	L/9N	25.0	S/RN
55.593	5.357	55.574	64.635	9.065	65.685	70.063	14.111	71.154
57.555	5.439	58.551	66.164	9.188	67.225	71.774	14.331	72.877
58.870	5.491	59.876	67.692	9.305	68.764	73.055	14.487	74.168
60.853	5.567	61.874	69.730	9.454	70.817	74.763	14.680	75.888
62.849	5.638	63.885	71.261	9.558	72.360	76.473	14.857	77.611
64.851	5.706	65.912	72.796	9.656	73.907	78.190	15.016	79.341
66.211	5.749	67.273	74.855	9.778	75.981	79.483	15.123	80.644
68.253	5.811	69.330	76.409	9.861	77.547	81.219	15.249	82.392
70.316	5.868	71.408	77.976	9.937	79.125	82.970	15.356	84.157
72.495	5.922	73.513	79.556	10.006	80.718	84.742	15.442	85.942
73.814	5.955	74.932	81.691	10.087	82.868	86.538	15.539	87.752
75.954	6.002	77.089	83.315	10.139	84.505	87.903	15.547	89.127
78.133	6.945	79.284	84,963	10.182	86.165	89.751	15.580	90.389
89.356	6.084	81.524	87.202	10.228	88.421	91.634	15.596	92.886
81.866	6.108	83.044	88.916	10.253	90.147	93.558	15.594	
94.176	6.139	85.372	90.663	10.270	91.907	95.030	15.583	96.388
86.549	6.166	87.763	93.050	10.281	94.313		15.555	98.329
88.168	6.181	89.394	94.838	10.281	96.164	99.097		130.436
90.660	6.199	91.905	96.771	10.275		101.218		162.542
93.234	6.211	94.448	99.359		100.669			104.189
95.899	6.219		101.363		102.688			106.447
97.729	6.220		103.425		104.766			108.785
100.564		101.883			107.639		_	111.210
103.513		104.855			109.876			113.391
106.588		107.953	_		112.191			115.589
10.8.713		110.094			115.408		-	118.399
112.023		113.428	-		117.928			121.232
115-490		116.921			120.548			124.203
119.128		120.587			123.276			126.521
121.657		123.135				128.227		129.754
125.616		127.123		-	130.108			133.158
129.789		131.328			133.259			136.749
134.195		135.767				137.975		139,575
137 - 272		138.867		9.917		141.904		143.533
142.110	_	143.741			144.898		*	147.727
147 • 235		148.905			150.110			152.176
152.671		154.381			154.257			155.594
156-478		158.217			158.622			160.543
16.2.483		164.268			164.807			165.911
168.788		170.620			169.741			171.524
175.324		177.204			174.945			175.978
179.812		181.726			182.335			182,264
186.749		188.715			188.241			188.985
193.937	_	195.958			194.480			196.160
201-386	6.114	203.462	20-1-278	9.897	203.353	201.763	14.759	263.842

ANGLE OF ATTACK = 0..00 CONF ANGLE = 7.00

P / P FREE-STREAM AT MACH NO. 30.0 S/PN L/RN 1.449 57.969 .878 63.583 1.695 1.123 58.767 1.968 1.393 2.421 1.843 51.655 44.253 3.005 2.422 3.719 37.540 3.131 31.775 4.572 3.978 27.087 5.568 4.967 6.707 23.426 5.098 7.984 7.365 20.623 9.389 8.760 18.490 16.856 10.911 10.270 15.362 12.959 12.302 14.697 14.475 14.028 13.800 16.512 15.829 13.293 18.391 17.694 20.325 19.614 12.919 12.654 22.333 21.577 12.476 24.315 23.574 25.596 26.352 12.372 12.335 28.404 27.633 30.464 12.356 29.677 32.524 12.432 31.722 35.088 12.597 34.267 37.124 12.781 36.287 39.141 38.289 13.005 13.265 41.134 49.268 13.558 43.182 42.221 45.042 13.879 44.146 46.951 14.223 45.042 48.830 14.588 47.907 50.678 49.741 1-4.970 52.495 51.544 15.363 5% 317 15.767 54.282 16.279 56.473 55.492 58.194 57.201 15.691 59.888 58.882 17.192 61.557 17.511 50.539 17.913 63.203 62.172 64.826 18.307 63.783 66.430 18.690 65.375 68.016 19.061 66.949 69.587 19.418 68.508 71.144 19,759 70.054 72.691 20.082

71.590

CONE ANGLE = 7.00 ANGLE OF ATTACK = 0.00

P / P FREE-STREAM AT MACH NO.

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L/RN
           30.0
                    S/RN
73.498
         20.458
                  74.614
75.018
         20.736
                  76.146
         20.991
76.537
                  77.675
 78.055
         21.223
                  79.205
 79.576
         21.430
                  80.738
 81.103
         21.611
                  82.276
 82.638
         21.767
                  83.823
 84.185
         21.896
                  85.381
35.746
         21.999
                  86.953
87.323
         22.075
                  88.543
         22.127
 88.921
                  90.153
 90.951
         22.156
                  92.198
         22.154
 92.606
                  93.865
94.290
         22.131
                  95.562
 96.009
         22.039
                  97.294
 97.766
         22.030
                  99.064
 99.564
         21.957 100.876
         21.871 102.733
101.408
         21.776 104.642
103.302
         21.674 106.605
105.251
         21.567 108.629
107.259
109.333
         21.457 118.718
112.026
         21.320 113.431
114.268
         21.212 115.690
116.596
         21.108 118.035
119.017
         21.009 120.474
121.538
         20.916 123.015
         20.832 125.666
124.170
         20-757 128-437
126.920
129.798
         20.591 131.337
132.816
         20.636 134.378
         20.592 137.570
135.985
139.317
         20.558 140.927
143.731
         28-538 145-374
         20.519 149.150
147.479
151.436
         20.516 153.138
         20.520 157.352
155.620
         20.532 161.813
163.047
         20.548 166.537
164.736
169.709
         20.569 171.547
174.986
         20.592 176.864
189.593
         20-618 182.513
         20-645 188.520
186.555
         20.672 194.913
192.900
201.419
         20.705 203.495
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CONE ANGLE = 8.00 ANGLE OF ATTACK = 0.80

		P /	P FREE-S'	TREAM AT	MACH NO	•		
L/RN	3.5	S/RN	L/RN	5.0	S/RN	L/RN	10.0	S/RN
.861	1.545	1.431	. 86.1	2.579	1.431	.851	8.613	1.431
.913	1.487	1.484	.914	2.471	1.485	.965	8.339	1.536
.969	1.528	1.540	. 974	2.524	1.545	1.030	8.281	1.602
1.091	1.557	1.564	1.108	2.516	1.681	1.279	7.786	1.354
1.239	1.556	1.804	1.265	2.461	1.839	1.473	7.411	2.:49
1.387	1.547	1.963	1.447	2.396	2.023	1.811	6.805	2.391
1.473	1.541	2.049	1.656	2.322	2.234	2.975	6.387	2.657
1.660	1.527	2.238	1.896	2.240	2.476	2.368	5.970	2.953
1.869	1.508	2.449	2.028	2.198	2.610	2.864	5.395	3.454
2.101	1.48.7	2.683	2.31.8	2.107	2.903	3.234	5.045	3.927
2.357	1.462	2.942	2.644	2.020	3.232	3.849	4.577	4.448
2.639	1.438	3.227	3.008	1.941	3.600	4.300	4.307	4.904
2.791	1.427	3.380	3.412	1.859	4.007	5.038		5.649
3.114	1.406	3.706	3.855	1.805	4.455	5.571		6.187
3.466	1.389	4.062	4.340	1.751	4.945	6.136		6.758
3.848	1.374	4.448	4.599	1.728	5.206	7.042		7.673
4.261	1.363	4.864	5.147	1.688		7.684	3.302	8.321
4.705	1.355	5.313	5.739	1.658	6.357	8.701	3.174	9.349
4.940	1.352	5.550	6.374	1.636	6.998	9.414	3.107	10.169
5.434	1.347	6.049	7.053	1.621	7.684	10.533	3.032	11.199
5.963	1.346	6.583	7.776	1.613	8.414	1-1-311	2.995	11.984
6.527		7.153	8.543	1.610	9.189	12.112	2.968	12.793
7.127	1.348	7.759	9.356	1.611	10.009	13.357	2.944	14.050
7.765	1.352	8.403	9.77-9	1-613	10.437	1-4.215	2.937	14.916
8.099	1.354	8.740	10.659	1.619	11.326	15.540	2.940	16.255
8.795	1.360	9.443	11.585	1.629	12.260	1.6.449	2.948	17.173
9.532	1.366	10.188	12.557	1-640	13.242	17.850	2.971	18.587
10.311	1.372	18.974	13.575	1:•653	14.270	1-8.807	2.992	19.553
11.132	1.379	11.803	14.640	1:.666	15.346	19.782	3.017	20.539
11.997	1.386	12.677	15.753	1.681	16.470	21.280	3.060	22.751
12.447	1.389	13.131	16.327	1-688	17.050	2-2.301	3.4092	23.582
13.381	1.396	14.075	17.512	1702	18.246	23.866	3.145	24.663
14.363	1.402	15.067	18.746	1716	19.492	24.932		25.739
15.395	1.408	16.108	20.029	1.729	20.788	26.565	3.241	.27. <sup>7</sup> 88
16.476	1.414	17200	21.363	1.742	22.135	27.675		28.509
17.611	1.419	18.345	22.747	1.753	23.533	28.805	3.322	29.549
18.198	1.421	18.938	24.183	1.764	24.983	30.533	3•383	31.394
19.413	1.426	20.166	25.67.2	1.774	26.486	31.708	3.423	32.581
29.686	1.430	21.451	26,436	1.779	27.258	33.506	3.482	34.397
22.016	1.434	22.795	28.005	1.788	28.842	34.728	3.521	35.631
23.408	1.437	24.199	29.629	1.796	30.482	36.598	3.576	37.520
24.861	1.44i	25.667	31.308	1.803	32.178	37.869	3.612	38.803
25.61-2	1.442	26-425	33.044	1.819	33.931	39.160	3.646	40.107
27.163	1.445	27.991	34.838	1.816	35.743	41.134	3.694	42.100
28.781	1.447	23.626	36.691	1.821	37-614	42.476	3.724	43.455

CONE ANGLE = 8.00 ANGLE OF ATTACK = 8.00

		p /	P FREE-S1	TREAM AT	MACH NO	•		
L/RN	3.5	SVRN	L/RN	5.0	SZRN	L/RN	16.5	SYRN
CZAN	0.00	37	2	, , ,				
30.469	1.450	31.331	37.640	1.824	38.572	44.527	3.767	45.527
32.230	1.452	33.109	39.584	1.828	40.535	45.922	3.793	46.935
34.065	1.454	34.962	41.590	1.833	42.561	48.055	3.831	49.189
35.012	1.455	35.918	43.659	1.837	44.650	49.506	3.854	50.554
36.964	1.456	37.889	45.793	1.840	46.805	50.981	3.876	52.044
38.997	1.458	39.942	47.992	1.843	49.026	53.242	3.907	54.327
41.114	1.459	42.089	50.260	1.846	51.316	54.784	3.925	55.884
43.318	1.460	44.306	51.419	1.848	52.487	57.153	3.952	58.277
45.612	1.462	46.622	53.791	1.850	54.882	58.774	3.968	59.913
46.794	1.462	47.815	56.235	1.853	57.349	61.275	3.991	62.439
49.228	1.463	50.274	58.752	1.855	59.891	62.993	4.004	64.174
51.760	1.464	52.831	61.345	1.857	62.509	64.756	4.017	65.955
54.394	1.465	55.491	64.015	1.859	65.206	67.495	4.034	68.720
57.133	1.466	58.256	66.766	1.860	67.984	69.390	4.043	70.533
59.988	1.466	61.131	69.599	1.862	70.844	72.345	4.055	73.518
61.446	1.467	62.611	71.047	1.863	72.307	74.397	4.06.1	75.590
54.463	1.467	65.658	74.009	1.864	75,298	77.610	4.067	78.935
57.599	1.468	68.825	77:061	1.865	78.381	79.849	4.069	81.196
71.858	1,469	72.117	80.207	1.866	81.557	82.172	4.070	83.541
74.245	1.469	75.536	83.450	1.867	84.832	85.823	4.069	87.228
77.764	1.469	79.090	86.794	1.868	88.209		4.068	89.807
79.574	1.479	80.918	90.243	1.869	91.692	92.369	4.065	93.839
83.301	1.470	84.682	92.009	1.869	93.475		4.064	96.686
87.173	1.470	88.591	95.625	1.870	97.127		4.063	
91.195	1.471	92.653	99.358	1.871		102.255		103.822
95.375	1.471		103.214		104.790	105.237	-	106.833
99.717		101.258			108.812			111.493
101.951		103.514			112.967			114.698
105.549		108.158			117.263			119.561
11-1-328		112.984			121.704			123.776
116,293		117.998			123.981			128.365
121.453		123.209				130.166		132.007
125.816		128.625			133.481			135.744
129.577		131.412			138.477			141.535 145.524
135-260		137.152			143.646			
141.169	1.473	143.118	146.988		148.994			151.705
147.312		149.322				153.889		155.963
153.699		155.772			157.367			162.562
160.341		162.479			163.192			167.167 171.773
163.761		165.933			169.220			
179.896		173.046			175.459			179.005
173.133		180.445			181.916			183.987 191.708
185.754		188.142			188.598			197.326
197.683		196.148			195:514			265.270
201.932	1.473	204.478	230.144	1.8/5	202.673	202.716	4 • - 0 0 0	€ U=2 4-€.1 U

CONE ANGLE = 8.00 ANGLE OF ATTACK = 0.00

		ρ/	P FRFF-S	TREAM AT	MACH NO			
L/RN	15.0	5/RN	L/RN	20.0	S/RN	L/RN	25.0	S/PN
L / (II	15.0	37101	EVICH	20.0	27 (0)4	E> 1/14	27.0	27 1.14
.861	18.664	1.431	.861	32.734	1.431	.861	50.826	1.431
1.026	17.880	1.598	1.025	31.320	1.596	1.097		1.669
1.183	17.135	1.756	1.266	29.241	1.841	1.356	44.140	1.931
							38.995	2.363
1.460	15.858	2.036	1.669	26.041	2.247	1.784 2.319		2.903
1.794	14.463	2.373	2.042 2.635	23.503	2.624		33.742	
2.190	13.038	2.774		20.261	3.223	2.966	28.991	3.557
2.650	11.691	3.238	3.344	17.429	3.939	3.729	24.900	4.328
3.177	18.476	3.770	3.954	15.600	4.555	4.612	21.559	5.219
3.772	9.401	4.371	4.872	13.594	5.482	5.611		6.228
4.673	8.217	5.281	5.908	12.038	6.527	7.012	16.518	7.643
5.429	7.506	6.044	6.756	11.122	7.384	8.243	15.101	8.386
6.251	6.928	€.874	7.976	10.166	8.616	9.560	14.032	10.215
7136	6.463	7.768	9.287	9.451	9.940	10.949	13.230	11.518
8.079	6.091	8.721	10.677	8.919	11.343	12.400	12.636	13. 84
9.077	5.797	9.728	11.764	8.616	12.442	13.903		14.501
10.125	5.565	10.786	13.266	8.313	13.958	15.448		16.161
11.218	5.385	11.890	1.4.818	8.105	15.526	17.026	11.785	17.755
12.737	5.212	13.424	16.010	7.999	16.729	18.628	11.593	19.373
13.919	5.123	14.618	17.629	7.915	18.364	20.655	11.548	21.420
15.132	5.063	15.843	19.276	7.885	20.027	22.287	11.578	23.168
16.374	5.030	17.096	20.524	7.892	21.288	23.921	11.658	24.718
17.640	5.018	18.375	22.202	7.936	22.982	25.552	11.784	26.365
18.929	5.025	1-9.677	23.889	8.014	24.685	27.174	11.952	28.003
20.237	5.048	20.998	25.578	8.124	26.392	28.783	12.160	29.627
21.562	5.087	22.335	26.845	8.226	27.671	30.375	12.404	31.235
23.350	5.158	24.141	28.528	8.384	29.371	31.947	12.680	32.823
24.705	5.225	25.510	30.203	8.565	31.061	33.497	12.983	34.388
26.069	5.381	26.887	31.450	8.714	32.321	35.402	13.394	36.312
27.441	5.387	28.273	33.101	8.929	33.988	36.899	13.744	37.824
28.819	5.480	29.664	34.734	9.158	35.638	38.371	14.158	39.310
30.201	5.580	31.059	35.948	9.337	36.863	39.819	14.482	40.772
31.586	5.685	32.458	37.550	9.583	38.481	41.242	14.862	42.210
32.973	5.794	33.859	39.133	9.834	40.080	42.643		43.624
34.823	5.945	35.727	40.308	10.025	41.266	44.022	15.629	45.717
36.211		37.129			42.832		16.009	
37.598	6.175	38.530	43.392	10.531	44.381	46.721	16.383	47.742
38.985	6.289	39.930	44.910	10.779	45.913	48.373	16.837	49.410
40.371	6.402	41.330	46.038	10.961	47.052	49.677	17.188	50.727
41.756	6.513	42.728	47.531	11.197	48.560	50.968	17.524	52.331
43.148	£.621	44.126	49.012	11.424	50.056	52.248	17.845	53.724
44.525	€.725	45.524	50.118	11.587	51.172	53.520	18.148	54.608
46.372	6.85.9	47.398	51.585	11.795	52.654	54.785	18.431	55.885
47.759	6.955	48.791	53.049	11.996	54.132	56.046	18.694	57.159
49.150	7.046	50.195	54.145	12.127	55.239	57.305	18.934	58.430
50.545	7.132	51.604	55.608	12.298	56.716	58.563	19.152	59.701
J:0 + D4 D	1.132	27 4 00 4	22000	16.620	20.110	204203	エッチエンと	7 3 4 7 U L

CONE ANGLE = 8.00 ANGLE OF ATTACK = 0.00

		P /	P FREE-S	TREAM AT	MACH NO	o.		
L/RN	15.9	S/RN	EZRN	20.0	S/RN	L/RN	25.0	SZRN
51.947	7.214	53.019	57.074	12.453	58.197	60.141	19.390	61.294
53.357	7.291	54.443	58.548	12.592	59.685	61.409	19.553	62.574
54.777	7.363	55.877	59.659	12.686	60.808	62.685	19.690	63.862
56.210	7.430	57.325	61.154	12.795	62.316	63.971	19.803	65.162
58.146	7.511	59.279	62.665	12.887	63.842	65.271	19.891	66.474
59.620	7.555	60.768	63.811	12.944	65.000	66.587	19.955	67.893
61.116	7.613	62.279	65.361	13.005	66.565	67.922	19.996	69.151
62.638	7.655	63.816	66.938	13.048	68.158	69.278	20.015	70.520
64.190	7.691	65.382	58.142	13.070	69.373	70.658	20.013	71.915
65.774	7.720	66.982	69.778	13.085	71.025	72.423	19.984	73.697
67.394	7.743	68.618	71.453	13.086	72.718	73.871	19.942	75.158
69.055	7.759	70.295	73.174	13.075	74.455	75.353	19.886	76.655
71.338	7.772	72.601	74.497	13.659	75.791	76.874	19.818	78.192
73.109	7.774	74.390	76.309	13.629	77.621	78.438	19.740	79.771
74.935	7.772	76.234	78.182	12.991	79.512	80.049	19.655	81.397
76.821	7.766	78.138	79.630	12.959	80.974	81.710	19.565	
78.772	7.756	80.108	81.624	12.912	82.988	83.428	19.473	84.910
89.794	7.744	82.150	83.697	12.863	85.081	85.206	19.380	86.506
82.894	7.731	84.27.0	85.309	12.825	86.709	87.524	19.266	88.946
85.077	7.717	86.475	87.542	12.775	88.964	89.460	19.179	
88.131	7.697	89.559	39.878	12.726	91.323	91.477	19.097	92.938
90.539	7.683	91.990	91.704	12.692	93.167	93.581	19.022	95.162
93.057	7.670	94.533	94.246	12.648	95.735	95.788	18.954	97.283
95.694	7.657	97.196	96.923	12.610	98.437	98.081	18.895	99.607
98.460	7.645	99,990	99.747	12.576		100.495	18.845	
101.366		102.924	-			103.030 105.696	18.804	
104.422 107.641		106.010			106.678 110.012			107.297 110.866
112.286		113.871	-			112.233		113.898
115.853		117.553			116.356			117.182
119.706		121.444			120.303			120.491
123.780		125.558			123.433			124.379
128.089		129.910			127.851			127.884
132.652		134.517			132.570			131.922
137.483		139.396			137.614			136.211
142.594		144.557			141.628			140.772
149.719		151.752			147.311			146.889
155.280		157.367			153.401		_	152.145
161.032		163.177			158.256		-	157.751
166.983		169.186			165.141			163.735
173.139		175.402			172.533		-	178.130
179.507		181.833			178.397			176.969
186.093		188.484			186.508		18.938	184.288
192.906	7.610	195.364	192.503		194.957		18.944	192.125
202.356	7.613	204.906	201.221	12.573	203.760	200.003	18.949	202.530

CONE ANGLE = 8.00 ANGLE OF ATTACK = 8.00

P / P FREE-STREAM AT MACH NO.

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S/RN
          30.0
 L/RN
        72.934
                  1.431
 .861
                  1.669
        68.325
1.096
                  1.930
        63.285
1.355
                  2.486
1.905
        53.952
        46.498
                  3.052
2.466
                  3.921
        38.384
3.326
                  4.749
4.147
        33.014
        28.729
                  5.696
5.084
                  7.038
        24.707
 6.413
                  8.228
        22.340
7.591
        20.170
                  9.840
 9.188
                 11.216
        18.995
10.550
                 12.655
11.975
        17.955
                 14.527
        17.109
13.829
15.358
        16.645
                 16.071
        16.270
                 18.043
17.311
                 19.645
        16.100
18.898
                 21.666
        16.016
21.899
         16.036
                 23.288
22.505
                 24.907
         16.124
24.109
                  26.921
         16.324
26.102
                  28.516
         16.549
27.682
                  30.485
         16.907
29.632
                  32.035
         17.247
31.167
                  33.561
         17.630
32.678
                  35.432
         18.160
34.531
                  36.899
         18.620
35.983
                  38.693
37.760
         19.231
                  40.098
         19.741
39.151
                  41.816
         28.399
43.853
                  43.162
         20.936
42.186
                  44.484
         21-477
43.495
                  46.194
         22.152
45.099
                  47.376
         22.688
46.358
                  48.938
47.986
         23.345
         23.856
                  50.168
49.124
                  51.383
         24.352
50.326
                  52.881
 51.810
         24.944
         25.394
                  54.066
 52.984
                   55.534
          25.921
 54.437
                  56.700
          26.313
 55.592
                  58.149
 57.027
          26.762
                  59.304
          27.087
 58.171
                   69.459
          27.381
 59.314
                  61.902
 69.744
          27.702
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CONE ANGLE = 8.00 ANGLE OF ATTACK = 0.00

P / P FREE-STREAM AT MACH NO.

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SIRN
          30.0
  L/RN
                 63.061
        27,921
61.891
                -64.516
        28.148
63.332
                 65.689
        28.292
64.494
                 66.872
65.665
        28.403
                 68.368
         28.495
67.146
                 69.581
         28.535
68.347
                 71.121
         28.542
69.872
                 72.375
         28.518
71.115
                 73.975
         28.452
72.699
                 75.283
         28.375
73.994
         28.279
                 76.619
75.317
                 78.333
         28.137
77.014
         28.010
                 79.742
78.409
                 81.557
         27.838
80.206
                  83.055
         27.695
81.690
         27.549
                  84.598
83.218
         27.368
                  86.596
85.197
                  88.255
         27.226
86.840
         27.057
                  90.411
88.975
                  92.208
         26.931
98.754
                  94.551
         26.787
93.075
                  96.512
         26.685
95.016
                  98.554
         26.595
97.038
         26.502 101.232
 99.691
         26.443 103.484
101.920
         26.388 106.447
104.854
         26.358 108.946
107.329
         26.341 111.569
109.927
          26.335 115.036
113.360
          26.341 117.973
116.269
          26.360 121.867
120.125
          26.383 125.174
123.400
          26.418 129.570
127.753
          26.451 133.314
131.460
          26.487 137.276
135.383
          26.533 142.561
140.617
          26.570 147.079
145.091
          26.614 153.121
151.075
          26.647 158.300
156.203
161.561
          26.676 163.811
          26.705 171.212
168.989
          26.721 177.577
175.292
          26.735 185.142
183.774
          26.740 193.525
191.085
          26.740 203.477
200.940
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CONE ANGLE = 9.00	ANGLE OF	ATTACK	=	8 • G C
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		P / P	FREE-ST	REAM AT	MACH NO.			
L/RN	3.5	S/RN	L/RN	5.0	S/RN	L/RN	10.0	S/RN
	300	****						
.844	1.637	1.414	.844	2.747	1.414	.844	9.220	1.414
.894	1.578	1.465	.953	2.690	1.524	.944	8.933	1.515
.949	1.620	1.520	1.016	2.697	1.588	1.079	8.719	1.652
1.068	1.649	1.641	1.156	2.654	1.730	1.333	8.167	1:919
	1.648	1.778	1.319	2.591	1.895	1.529	7.763	2.108
1.204	1.639	1.933	1.507	2.518	2.086	1.868	7.129	2.451
1.356	1.625	2.106	1.723	2.437	2.304	2.261	6.498	2.849
1.527	1.608	2.299	1.968	2.349	2.552	2.712	5.912	3.306
1.718		2.514	2.245	2.257	2.832	3.046	5.559	3.544
1.931	1.587	2.752	2.555	2.166	3.146	3.598	5.085	-4.203
2.166	1.562	3.014	2.900	2.085	3.496	4.211	4.685	4.823
2.424	1.535	3.301	3.279	2.013	3.880	4.654	4.460	5.271
2.707	1.512		3.692	1.949	4.297	5.367	4.178	5.993
3.016	1.492	3.614	4.138	1.896	4.750	6.136	3.957	6.773
3.352	1.475	3.953	4.620	1.853	5.237	6.960	3.786	7.606
3.715	1.461	4.321	5.136	1.820	5.760	7.537	3.696	8.191
3.907	1.455	4.515	5.688	1.795	6.319	8.442	3.591	9.107
4.313	1.446	4.926	6.276	1.778	6.914	9.391	3.518	10.168
4.748	1.440	5.367	6.901	1.768	7.547	10.047	3.484	10.732
5.214	1.436	5.839		1.764	8.216	11.061	3.452	11.759
5.711	1.435	6.342	7.562	1.765	8.924	12.111	3.440	12.822
5.240	1.436	6.877	8.262	1.769	9.671	13.194	3.444	13.918
6.801	1.439	7.445	8.999	1.778	10.457	13.932	3.456	14.665
7.396	1.444	8.048	9.776	1.789	11.284	15.063	3.483	15.816
8.025	1.450	8.685	10.593		12.153	16.220	3.522	16.982
8.690	1.456	9.357	11.451	1.802	13.065	17.006	3.552	17.778
9.390	1.464	10.067	12.352	1.817	14.020	18.205	3.605	18.992
19.127	1.471	10.813	13.294	1.832	15.013	19.427	3.664	20.229
10.903	1.478	11.598	14.276	1.849	16.046	20.672	3.7.29	21.489
11.717	1.486	12.422	15.296	1.865		21.514	3.773	22.342
12.571	1.493	13.287	16.354	1.882	17.118 18.229	22.795	3.843	23.638
13.913	1.497	13.735	17.452	1.897		24.096	3.914	24.956
13.929	1.503	14.662	18.589	1.912	19.380	25.418	3.985	26.294
14.888	1.510	15.633	19.765	1.926	26.571	26.311	4.032	27.198
15.890	1.516	16.648	20.982	1.939	21.803	27.666	4.102	28.571
16.937	1.521	17.708	22.238	1.952	23.075		4.17.0	29.964
19.031	1.526	18.815	23.535	1.963	24.388	29.042	4.214	30.993
19.172	1.531	19.970	24.873	1.973	25.743	29.970	4.277	32.339
20.361	1.535	21.175	26.253	1.982	27.139	31.379	4.337	3-3-778
21.601	1.539	22.430	27.674	1.991	28.579	32.809	4.394	35.246
22.893	1.543	23.738	29.139	1.999	30.061	34.259	4.429	36.237
24.238	1.546	25.100	30.646	2.006		35.238	4.480	37.743
25.638	1.549	26.517	32.197	2.012		36.725	4.527	3.9.273
27.094	1.552	27.991	33.793	2.018		38.236	4.556	40.307
28.608	1.555	29.524	35.435	2.024		39.258	4.598	41.882
30.181	1.557	31.117	37.122	2.028	38.145	40.813	4.230	3-7 400 E

CONE ANGLE = 9.00 ANGLE OF ATTACK = 0.00

		P /	P FREE-S	TREAM A	T MACH N	0.		
L/RN	3.5	SZRN	L/RN	5.0	S/RN		10.0	S/RN
70.004							2000	37 KI
30.991	1.558	31.937		2.033		42-400	4.636	43.488
32.658	1.560	33.624		2.037		44.021	4.672	
34.388 36.186	1.562			2.041		45.124	4.693	
	1.563			2.044		46.814	4.723	
38.051 39.988	1.565	39.085		2.047			4.750	
41.997	1.565	41.046		2.050			4.766	
44.081	1.568 1.569	43.080		2.053			4.788	
46.242	1.570	45.190		2.055		53.482	4.805	
48.484	1.571	47.378		2.G57		55.461	4.819	
50.808	1.572	49.648		2.059		56.826	4.825	
53.217	1.572	52.001 54.440	59.055	2.061		58.948	4.832	60.243
55.716	1.573	56.970	61.398	2.063	62.723	61.168	4.835	62.490
58.305	1.574	59.592	63.809	2.064		62,707	4.835	64.749
60.989	1.575	62.309	66.290	2.066	67.676	65.112	4.834	66.483
62.368	1.575	63.705	68.846 71.480	2.067		67.640	4.831	69.143
65.201	1.575	66.573	74.194	2.068	72.938	70.305	4.828	71.741
68.138	1.576	69.547		2 • 0 6 9 2 • 0 7 0	75.678	72:163	4.826	73.622
71.182	1.576	72.629	79.880	2.07.0	78.512	75:082	4.823	7-6-577
74.338	1.577	75.824	82-859	2.07.1	81.435	78.172	4.820	79.706
77.610	1.577	79.137		2.071	84.452 87.565	81.447	4.818	83.122
81.003	1.577	82.572	89.108	2.072		83:-736	4.817	85.339
84.522	1.578	86.135	92.385	2.07.2		87-280	4.815	88.927
88.171	1.578	89.830	95.769	2.073	97.523		4.814	92.649
91.957	1.578	93.653	99,265		101.062	97.392	4.813	
95.885	1.578		102.875		104.717	101 451	4.812	99.166
99.961	1.578	101.767	106.605	2.074	108.494	105.665		103.275 107.542
104.191	1.579	106.049	110.458	2.874	112.395	108.564		110.476
108.581	1.579	110.494	114.439	2.074		113.050		115.19
113.139	1.579	115.109	118.553			117.710	4.8005	119.737
115.483	1.579	117.482	122.803			120.915	4.809	122.982
120.304	1.579	122.363	127.195	2.075		125.877	4.809	128.006
125.311	1.579	127.433	131.733	2.075		131.029	4.819	133.222
130.511	1.579	132.697	136.423	2.075		136.379		138.639
135.912		138.165		2.075		140.060		142.365
141.521		143.845		2.076	148.661	145.757		148.133
147.349	1,579	149.745	151.455	2.076	153.903	151.673		154.123
153.403	1.580	155.874	156.806	2.076	159,320	155.743	4.812	158-244
159.692	1,580	162.242	162.336	2 - 0.7-6	164.919	162.042		164.622
166.227 173.016	1.500	168.858	168.052	2.076	170.707	168.585	4.813	171.246
180.071	1.700	175.733	173.961	2.076	176.689	175.378	4.813	178.124
187.402	1 E 8 D	182.876	100.068	2.076	182.872	180.052	4.814	182.856
195.019	1.580	190.298	100.381	2.076	189.264	187,287	4.814	190.182
202.935	1.580	198.010 206.024	172.44 207.444	2.076	195.871	194.801	4.815	197-789
3,27,07	44 / O U	LUC   UZ 4	203.111	2.0/b	206.202	202.504	4.815	205.689

CONE ANGLE = 9.00 ANGLE OF ATTACK = 9.00

		P /	P FREE-S	TREAM AT	MACH NO	•		
L/RN	15.0	S/RN	L/RN	20.0	S/RN	L/RN	25.0	S/RN
. 844	19.999	1.414	.844	35.089	1.414	.844	54.493	1.414
1.002	19.177	1.574	1.071	32.962	1.644	1.070	51.147	1.643
1.151	18.407	1.725	1.318	30.661	1.894	1.316	47.534	1:892
1.514	16.606	2.093	1.720	27.281	2.301	1.830	40.902	2.413
1.844	15.161	2.427	2.213	23.875	2.800	2.344	35.639	2.933
2.366	13.271	2.956	2.803	20.771	3.397	5.123	29.898	3.722
2.823	11.990	3.418	3.492	18.107	4.095	3.858	26.084	4.465
3.521	10.500	4.125	4.281	15.923	4.894	4.689	23.029	5.307
4.112	9.563	4.723	5.165	14.211	5.790	5.855	20.159	6.488
4.987	8.557	5.609	6.139	12.904	6.775	6.879	18.476	7.524
5.705	7.962	6.336	7.190	11.921	7.840	8.253	16.952	8.916
6.739	7.348	7.382	8.31.0	11.192	8.973	9.416	16.085	10.293
7.565	6.997	8.219	9.487	10.660	10.165	19.623	15.457	11.315
8.431	6.722	9.096	10.711	10.282	11.404	12.180	14.933	12.892
9.639	6.452	10.319	11.973	10.026	12.682	13.455	14.679	14.183
10.580	6.309	11.271	13.265	9.870	13.990	15.074	14.521	15.421
11.873	E.182	12.581	14.579	9.793	15.320	16.380	14.497	17.144
12.869	6.127	13.589	15.909	9.781	16.667	18.019		18.883
14.223	6.098	14.960	17.250	9.823	18.024	19.328	1:4.690	20.129
15.256	6.104	16.006	18.595	9.909	19.386	2.0. • 630	1.4.867	21.447
16.652	6.145	17.419	19.940	10.033	20.748	22.242	15.157	23.179
17-710	6.195	18.490	21.281	10.191	22.106	23.516	15.440	24.369
19.131	6.286	19.929	22.614	10.381	23,455	25.083	15.851	25.955
20.202	6.368	21.013	23.935	10.598	24.793	26.314	16.221	27-202
21.634	6.495	22.453	25.243	10.841	26.117	27.525	16.623	28.423
22.709	5.602	23.552	26.534	11.106	27.424	29.008	17.161	29,929
23.784	6.717	24.640	27.808	11.389	28.715	30.169	17.614	31.135
25.214	6.881	26.088	29.064	11.686	29.986	31.591	18.201	32.544
26.283	7.011	27.171	30.302	11.993	31.239	32.705	18.680	33.672
27.703	7.191	28.688	31.521	12.307	32.474	34.670	19.285	35.354
28.763	7.329	29.681	32.723	12.623	33.690	35.142	19.767	36.139
30.168	7.515	31.104	33.907	12.939	34.890	36.196	20.244	37207
31.216	7.655	32.165	35.076	13.252	36.073	37.493	20.826	38.520
32.635	7.840	33.572	36.231	13.559	37.242	38.515	21.276	39.555
33.644	7.976	34.623	37.373	13.857	38.398	39.776	21.815	40.832
35.020	8.152	36.017	38.504	14.144	39.544	40.774	22.223	41.842
36.049	8.280	37.058	39.626	14.418	40.679	41.764	22.608	42.844
37.417	8.444	38.443	40.741	14.677	41.808	42.992	23.053	44.987
38.442	8.561	39.481	41.850	14.920	42.931	43.969	23.379	45.376
39.466	8.673	40.518	42.957	15.145	44.052	45.187	23.744	46.310
49.834	8.813	41.903	44.063	15.350	45.171	46.160	24.003	47.295
41.863	8.912	42.945	45.170	15.535	46.292	47.379	24.283	48-529
43.247	9.032	44.341	46.281	15.698	47.417	48.358	24.472	49.520
44.284	9.115	45.396	47.398	15.840	48.548	49.342	24.636	50.517
45.686	9.215	46.815	48.523	15.961	49.687	50.583	24.785	51.773

CONE ANGLE = 9.00 ANGLE OF ATTACK = 0.00

		P /	P FREE-S	TREAM AT	MACH NO	<b>.</b>		
L/RN	15.0	S/RN	L/RN	20 • C	S/RN	L/RN	25.0	S/RN
46.749	9.280	47.892	49.945	16.080	51.128	51.586	24.875	52.789
48.187	9.356	49.347	51.099	16.152	52.296	52.857	24.948	54.175
49.282	9.494	50.455	52.270	16.203	53.481	53.889	24.976	55.120
59.768	9.455	51.960	53.460	16.235	54.686	54.937	24.979	56.182
51.905	9.485	53.112	54.673	16.249	55.914	56.274	24.949	57.535
53.456	9.513	54.682	55.912	16.246	57.168	57.367	24.901	58.642
54.648	9.525	55.888	57.179	16.229	58,452	58.766	24.816	60.359
55.867	9.531	57.123	58.479	16.199	59.768	59.916	24.731	61.222
57.539	9.530	58.816	59.815	16.158	61.121	61.394	24.607	62.719
58.833	9.524	60.126	61.191	16.107	62.514	62.613	24.497	63.954
69.615	9.509	61.930	62.611	16.050	63.951	63.868	24.382	65.224
61.999	9.495	63.331	64.079	15.988	65.437	65.492	24.234	66.868
63.914	9.472	65.271	65.600	15.923	66.977	66.838	24.115	68.231
55.408	9.453	6.6.78.3	67 <b>.</b> 179	15.857	68.576	68.588	23.971	70.002
67.483	9.427	68.884	68.822	15.791	78.240	70.045	23.862	71.478
69.109	9.407	70.530	70.535	15.729	71.973	71.558	23.759	73.009
71.377	9.380	72.826	7-2.323	15.670	73.784	73.534		75.310
73.160	9.362	74.632	74.194	15.616	75.679	75.189	23.561	76.686
75.658	9.338	77.161	76.156	15.567	77-665	77.359	23-475	7-8-383
77.630	9.323	79.157	78.217	15.526	79.751	79.184	23.419	80.731
79.693	9.308	81.246	80.384	15.491	81.946	81.586	23.365	83.162
82.597	9.292	84.187	82.669	15.463	84.259	83.612	23.334	85.214
84.900	9.281	86.518	85.080	15.442	86.700	85.740	23.315	87.768
88.152	9.270	89.810	87.629	15.428	89.281	88.554	23.303	90.218
9.0 • 737	9.264	92.428	96.328	15.420	92.014	90.940	23.304	92.633
94.396	9.258	96.133	93.189	15.418	94.911	94.105	23.314	95.838
97.312	9.256	99.085	96.226	15.423	97.985	96.795	23.330	98.562
101.446 104.746		103.271	9.9.453		101.253 104.728	99.639 103.426	23.350 23.380	
109.434		106.612 111.357			108.430			10-8-548
113.180		115.150			112.376			112.919
11-8.506		120.543			116.586			116.659
122.767		124.857				119.617	-	121.668
127.200		129.345			_	123.861		125.965
133.340		135.562			131.031		23.559	
138.124		140.405			136.535			136.696
144.749		147.113			142.433			141.993
149.910			146.355	-		146.739	23.606	
157.058		159.576			155.334		23.618	
162.627		165.214				159.295		161.840
170.340		173.623				167.783		170.434
17-6 - 350		179.108	-	_		174.875	_	177.614
184.676		187.537				184.137	-	186.992
191.163	9.300	194.106	189.676			191.879		194.830
200.152	9.301	203.207	200.106	15.561	203.160	201.994	23.597	205.072

### NSHC/HOL/TR 75-45

CONE ANGLE = 9.00 ANGLE OF ATTACK = 0.00

	CON	ANGLE -	9.00				
L/RN	30.0	P/P S/RN	FREE-ST	REAM	AT	MACH	NO.
.844	78.210	1.414					
1.069	73.374	1.642					
1.406	66.308	1.984					
1.947	56.677	2.531					
2.483	49.241	3.074					
3.291	41.273	3.891					
4.251	34.906	4.864					
5.125	31.001	5.749					
6.337	27.363	6.976					
7.664	24.794	8.319					
8.793	23.312	9.462					
10.271	21.994	10-959					
11.806	21.126	12.512					
13.063	20.680	13.786					
14.660	20.363	15.482					
15.272	20.253	17.035					
17.565	20.282	18.344					
19.177	20.437	19.976					
20.776	20.709	21.595					
22.041	21.005	22.875					
23.598	21.465	24.451					
25.124	22.017	25.997					
26.321	22.519	27.208					
27.784	_	28.690					
29.211		30.135					
30.327		31.264					
31.689	25.417	32.644					
72000	06 267	77 080					

33.989

35.041

36.329

37.589

38.579

39.796

40.993

41.938

43.196

44.262

45.181

46.323

47.462

48.372

49.512

50.656

51.578

52.739

26.263

26.949

27.806

28.655

29.319

3.3.126

30.896

31.482

32.171

32.805

33.271

33.798

34.262

34.587

34.933

35.214

35.392

35.556

33-017

34.057

35.329

36.574

37.551

38.753

39.935

40.869

42.022

43.164

44.072

45.200

46.324

47.224

48.349

49.480

59.390

51.537

CONE ANGLE = 9.00 ANGLE OF ATTACK = 9.00

P / P FREE-STREAM AT MACH NO.

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S/RN
  LIRN
          30.0
                 53.915
        35.659
52.698
                 55 107
53.876
        35.703
                 56.076
54.833
        35.698
        35.646
                 57.308
56.049
        35.547
                 58.566
57.292
                 59.595
58.308
         35.438
59.608
         35.272
                 60.910
         35.078
                 62.264
60.944
                 63.376
         34.908
62.043
                 64.808
         34.685
63.457
                 56.289
         34.455
64.920
                 67.513
         34.271
66.129
                  69.096
67.693
         34.047
         33.835
                  70.744
69.321
                  72.114
         33.676
70.673
                  73.894
72.432
         33.494
74.273
                  75.759
         33.335
         3-3 - 226
                  77.315
75.811
                  79.350
         33.113
77.821
                  81.493
79.937
         33.927
         32.976
                  83.290
81.712
                  85.652
         32.935
84.045
                  88.151
         32.916
86.513
         32.915
                  98.258
88.594
                  93.038
91.340
         32.929
                  95.995
         32.958
94.260
         32.990
                  98.498
96.732
         33.037 101.814
199.008
         33.092 105.357
103.507
         33.138 108.369
105.482
         33.198 112.376
110.440
         33.257 116.678
114.689
         33.301 120.351
118.317
         33.351 125.259
123.164
         33.391 130.554
128.394
132.879
          33.417 135.095
          33.438 141.188
138.897
          33.449 147.790
145.417
          33.452 153.471
151.029
          33.450 161.119
158.583
          33.443 169.405
166.766
          33.436 176.364
173.640
182.608
          33.427 185.444
          33.419 194.967
192.014
          33.412 204.958
201.882
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CONE ANGLE = 10.00 ANGLE OF ATTACK = 0.00

		P / 1	P FREE-SI	REAM AT	MACH NO	•		
L/RN	3.5	S/RN	L/RN	5.0	S/RN	LZRN	10.0	S/RN
	0.0	S. All	2,	, ,	<b>G</b> 7		2000	
.826	1.734	1.396	.826	2.925	1.396	.826	9.861	1.396
. 923	1.716	1.501	.932	2.864	1.504	.982	9.498	1.555
.986	1.738	1.558	.993	2.871	1.565	1.127	9.161	1.702
1.110	1.748	1.684	1.129	2.827	1.704	1.380	8.576	1.958
1.249	1.741	1.826	1.287	2.761	1.864	1.676	7.942	2.259
1.406	1.728	1.985	1.468	2.686	2.048	2.019	7.306	2.607
1.581	1.712	2.163	1.675	2.601	2.258	2.410	6.686	3.005
1.776	1.692	2.360	2.037	2.466	2.625	2.853	6.140	3.454
1.991	1.678	2.579	2.316	2.368	2.909	3.346	5.659	3.954
5.558	1.643	2.820	2.621	2.282		3.890	5.251	4.507
2.488	1.615	3.083	2.954	2.207		4.483	4.917	5.109
2.771	1.593	3.371	3.314	2.140	3.922	5.123	4.650	5.759
3.078	1.575	3.683	3.702	2.083	4.317	5.808	4.442	6.455
		3.003 4.021	4.120	2.036	4.748	6.534	4.284	7.192
3.411	1.561				5.431	7.297	4.158	7.966
3.769	1.549	4.384	4.800	1.984	5.929		4.130	8.775
4.154	1.540	4.775	5.290	1.961		8 . 093		9.615
4.565	1.534	5.193	5.809	1.945	6.456	8.920	4.035	
5.084	1.531	5.638	6.357	1.935	7.013	9.774	4.009	10.482
5.471	1.531	6.113	6.935	1.932	7.599	10.652	4.003	11.373
5.967	1.534	6.616	7.543	1.934	8.216	11.551	4.016	12.287
6.492	1.538	7.149	8.180	1.940	8.863	1-2-470	4.043	13.219
7.046	1.544	7.712	9.192	1.955	9.891	13.406	4.084	14.172
7.631	1.550	8.306	9.905	1.958	10.614	14.357	4.136	15.135
8.248	1.558	8.932	10.649	1.984	11.370	15.324	4.197	16.117
8.895	1.566	9.598	11.425	2.001	12.159	16.303	4.265	17.112
9.575	1.57-4	10.280	12.235	2.018	12.981	17.295	4.339	18.118
19.288	1.583	11.004	13.078	2.037	13.837	18.297	4.416	19.137
11.035	1.591	11.762	13.957	2.055	14.729	19.311	4.497	20.166
11.816	1.599	12.555	15.343	2.082	16.137	20.335		21.206
12.631	1.607	13.384	16.316	2.100	17.125	21.368		22.255
13.923	1.617	14.695	17.324	2.116	18.149	22.410		23.313
14.830	1.624	15.616	18.364	2.132	19.204	23.461	4.825	24.380
15.775	1.630	16.576	19.434	2.147	20.291	24.521		25.456
16.759	1.636	17.575	20.535	2.160	21.409	25.589	4.979	26.541
17.782	1.641	18.614	21.668	2.172		26.666	5.052	27.635
18.847	1.646	19.694	23.425	2.189	24.344	27.752	5.121	28,738
19.952	1.650	20.817	24.637	2.199	25.574	28.848	5.186	29.351
21.101	1.654	21.983	25.880	2.208	26.837	29.955	5.248	30.974
22.293	1.658	23.194	27.156	2.216	28.132	31.074	5.306	32.110
23.530	1.661	24.450	28.465	2.224	29.461	32.205	5.360	33.260
24.813	1.664	25.753	29.808	2.231	30.825	33.354	5,410	34.426
26.143	1.667	27.104	31.184	2.237	32.222	34.520	5.457	35.610
27.522	i.670	28.504	33.314	2.246	34.385	35.707	5.499	36.915
28.950	1.672	29.954	34.778	2.251	35.871	36.917	5.538	38.344
39.430	1.674	31.457	36.278	2.255	37.395	38.155	5573	39.304

CONE ANGLE = 10.00 ANGLE OF ATTACK = 0.00

		P /	P FREE-ST	TREAM AT	MACH NO	•		
L/RN	3.5	SZRN	L/RN	5.0	SZRN	L/RN-	10.0	S/RN
	3.5		<b>4.</b>					
31.962	1.676	33.012	37.817	2.259	38.957	39.424	5.603	40.589
33.548	1.678	34.623	39.394	2.263	40.559	40.727	5.629	41.913
35.190	1.680	36.290	41.011	2.267	42.200	42.070	5.650	43.276
36.888	1.681	38.015	43.514	2.271	44.743	43.455	5.666	44.683
38.646	1.682	39.800	45.238	2.274	46.493	44.889	5.678	46.139
46.465	1.684	41.646	47.008	2.277	48.291	46.375	5.685	47.548
42.346	1.685	43.557	48.826	2.279	50.137	47.919	5.689	49.216
44.292	1.686	45.533	50.694	2.281	52.034	49.527	5.689	50.848
46.305	1.687	47.577	52.615	2.283	53.984	51.203	5.687	52.55C
48.388	1.688	49.691	54.591	2.284	55.991	52.955	5.683	54.329
50.542	1.689	51.879	57.664	2.286	59.111	54.790	5.678	56.192
52.771	1.689	54.142	59.789	2.287	61.269	56.715	5.674	58.147
55.077	1.690	56.483	61.978	2.288	63.491	58.737	5.669	60.200
57.463	1.691	58.907	64.234	2.289	65.782	60.865	5.665	62.362
59.933	1.691	61.415	66.559	2.290	68.143	63.109	5.660	64.640
63.802	1.692	65.343	68.956	2.291	70.577	65.478	5.657	67.346
65.496	1.692	68.079	71.427	2.291	73.086	67.983	5.653	69.589
69.286	1.692	70.912	75.281	2.292	76.999	70.634	5.650	72.281
72.176	1.693	73.847	77.951	2.292	79.710	73.444	5.648	75.134
75.171	1.693	7-6-888	80.705	2.293	82.507	76.422	5.645	78.158
78.275	1.693	80.039	83.547	2.293	85.393	79.530	5.643	81.314
81-492	1.693	83.306	86.479	2.293	88.379	82.753	5.642	84.586
84.826	1.694	86.692	89.504	2.294	91.442	86.095	5.641	87.981
88.284	1.694	90.203	92.625	2.294	94.612		5.641	
91.870	1.694	93.844	97.496	2.294	99.557		5.641	
95.588	1.694	97.620			102.987	96.887	5.641	
99.445		101.537			106.526			10.2.867
103.446		105.599			110.180			166.946
10:7:- 597		109.814			113.951			111.164
11-1-903		114.186			117.844			115.545
116.371			119.462		121.862			120.588
121.006		123.430				122.356		124.803
125.816			129.925			127.168		129.687
130.807		133.382				132.159		134.755
135.986			138.918		141.618			140.011
141.361		144.099			146.407			145.462
146.938		149.762			151.351			151 • 115
152,726		155.639			156.456			156.978
158.732		161.738			164.427			153-950
154.965		168.067			169.957			169-367
171.434		174.636			175.668			175.909
178.148		181.453			181.564			182.595
185.116		188,529			187,652			189.733
192.347		195.871				193.492		197 • 34
203.710	1.696	207.410	200.111	2.296	203.755	200.350	5.003	264.567

CONE ANGLE = 10.00 ANGLE OF ATTACK = 5.00

		-P /	P FREE-S	TREAM AT	MACH NO	•		
L/RK	15.0	S/RN	LIRN	20,0	S/RN	L/RN	25.0	S/RN
.826	21.412	1.396	.826	37.581	4 706	9 76	58.367	4 206
					1.396	.826		1.396
•979	20.553	1.551	1.044	35.366	1.618	1.043	54.887	1.617
1.197	19.331	1.772	1.275	33.029	1.851	1.358	49.919	1.936
1.553	17.456	2.134	1.646	29.614	2.229	1-0747	44.513	2.331
1.987	15.519	2.575	2.221	25.344	2.812	2.344	37.923	2.937
2: 367	14.118	2.961	2.774	22.288	3.374	3.070	32.283	3.675
2.948	12.475	3.551	3.411	19.688	4.021	3.744	28.573	4.759
3.615	11.091	4.228	4.321	17.113	4.945	4.696	24.978	5.325
4.364	9.987	4.989	5.134	15.565	5.770	5.755	22.388	6.401
5.191	9.140	5.828	6.013	14.394	6.663	6.668	20.889	7.328
5.856	8549	6.504	7.189	13.349	7.857	7-874	19.558	8.552
6.797	8.151	7.459	8.180	12.772	8.863	9.134	18.686	9.832
7.790	7.798	8.467	9.205	12.372	9.904	10.171	18.240	10.885
8.825	7.558	9.519	10.523	12.069	11.243	11.491	17.929	12.226
9.895	7.409	10.605	11.598	11.951	12.334	12.827	17.830	13.582
10.715	7.346	11.438	12.686	11.922	13.438	13.900	17.87°G	14.672
11.828	7.316	12.568	14.054	11.984	14.828	15.240	18.033	1632
12.957	7.338	13.714	15.150	12.096	15.941	16.571	18.299	17.383
14.098	7.401	14.873	16.244	12.254	17.051	17.624	18.575	18.453
14.959	7.471	15.746	17.331	12.450	18.156	18.923	18.994	19.772
16.109	7.589	16.915	18.677	12.744	19.523	29.198	19.488	21.167
17.261	7.731	18.084	1-9.741	13.014	20.603	21.198	19.934	22.383
18.410	7-894	19.252	20.790	13.314	21.668	22.423	28.545	23.326
19:555	8.073	20.414	22.080	13.722	22.978	23.618	21.207	24.540
20-409	8.218	21.281	23.094	14.072	24.007	24.553	21.764	25.489
21.548	8.421	22.430	24.090	14.438	25.019	25.696	22.485	26.649
22.661	8.634	23.568	25.313	14.910	26.261	26.811	23. 222	27.782
23.772	8.854	24.696	26.273	15.294	27.235	27.685	23.816	28.669
24.872	9.977	25.813	27.218	15.679	28.195	28.756	24.552	29.757
25.690	9.244	26.644	28.379	16.157	29.374	29.806	25.274	30.823
26.772	9.466	27.742	29.293	16.531	30.302	30.633	25.834	31.663
27.844	9.683	28.831	30.197	16.895	31.220	31.551	26.504	32.597
28.908	9.894	29.911	31.313	17.330	32.353	32,656	27.136	33.717
23.701	10.347	30.717	32.197	17.659	33.251	33.451	27.698	34.524
39.755	10.243	31.786	33.075	17.968	34.142	34.437	28.152	35.525
31.804	10.428	32.852	34.166	18.324	35.250	35.417	28.641	36.520
3.2 • 853	10.500	33.917	35.036	18.582	36.133	36.197	28.991	37.313
33.903	10.760	34.983	35.905	18.815	37.016	37.172	29.376	38.303
34.692	10.870	35.784	36.775	19.022	37.900	38.148	29.700	39.294
35.750	11.003	36.858	37.867	19.243	39.008	38.931	29.917	40.089
36.815	11.121	37.940	38.745	19.390	39.900	39.916	30.136	41.989
37.892	11.222	39.033	39.631	19.511	40.7-99	40.909	30.298	42.198
38.982	11.306	40.141	46.749	19.626	41.935	41.713	30.290 30.388	42.913
39.811	11.358	40.982	41.657	19.691	42.856	42.730	30-454	43.946
43.932	11.413	42.121	42.577	19.732	43.791	43.764	30.472	44.997
43430C	エエ・ユエウ	4 C 0 T C T	マムチンドリ	T2012C	701171	701104	300012	44 4 2 2.1

CONE ANGLE = 10.00 ANGLE OF ATTACK = 0.00

		P /	P FREE-S	TREAM AT	MACH NO	0.		
L/RN	15.0	S/RN	L/RN	20.0	S/RN	L/RN	25.0	SZRN
_,		• • • • • • • • • • • • • • • • • • • •	•		<b>5</b> ,		-,,,	<b>J.</b>
42.076	11.452	43.282	43.748	19.755	44.980	44.606	30.454	45.952
43.246	11.476	44.470	44.705	19.751	45.952	45.680	30.395	46.942
44.142	11.486	45.381	45.682	19.730	46.944	46.781	30.299	48.959
45.366	11.488	46.623	46.935	19.683	48.217	47.682	30.199	48.975
46.626	11.480	47.903	47.966	19.630	49.264	48.839	3.0.053	50.150
47.927	11.463	49.224	49.025	19.567	50.339	50.033	29.887	51.362
49.274	11.440	50.591	50.393	19.476	51.728	51.017	29.746	52.361
50.317	11.419	51.650	51.526	19.397	52.878	52.287	29.564	53.651
51.755	11.387	53.111	52.697	19.315	54.067	53,606	29.382	54.991
53.254	11.353	54.633	53.909	19.232	55.298	54.706	29.241	56.101
54.820	11.318	56.223	55.488	19.131	56.901	56.128	29.073	57.543
56.460	11.284	57.888	56.807	19.054	58.241	57.603	28.919	59.349
57.742	11.258	59.190	58.180	18.982	59.635	58.839	28.809	60.304
59.53C	11.226	61.005	59.980	18.902	61.463	60.453	28.688	61.943
61.413	11.198	62.918	61.494	18.846	62.999	62.149	28.589	63.565
53.402	11.172	64.938	63.077	18.799		63.570	28.525	65.108
64.969	11.156	66.529	65.166	18.752	66.729		28.455	67.002
67.168	11.137	68.761	66.932	18.724	-	67.437		69.004
69.502	11.123	71.131	68.790	18.704	76.408	69.068	28.408	70.691
71.984	11.112	73.651	71.253	18.691	72.909		28.400	72.915
74.627	11.106	76.336	73.346	18.687	75.035		28.407	75.278
76.724	11.104	78.465	75.558	18.689		75.555	28.422	77.278
79.685	11.103	81.472	78.505	18.699	86.273	78.164	28.449	79.927
82.850	11.106	84.686	81.020	18.711	82.827	80.951	28.484	82.757
86.237	11.110	88.125	83.688	18.726	85.537	83.319	28.516	85.162
89.864	11.116	91.808	87.257	18.748		86.470	28.561	88.361
92.755	11.121	94.743	90.315	18.768	92.266	89.852	28.607	91.795
96.854	11.128	98.905	93.571	18.788	95.571	92.739	28.644	
101.253		103.372	97.039	18.807	99.093	96.596	28.687	98.643
105.979		108-171			103.827		-	102.868
109.710		111.959			107.902			106.490
114.871		117.200				109.110		111.351
120.254		122.667			118.129			116.616
125.869		128.368			123.198			121.147
131.726			126.066			124.765		127.246
136.285		138.945			135.585			133.869
142.593		145.350			141.454			139.463
149.176		152-034	-		147.561			146.762
156.045		159.009		-	155.545		_	154.423
163.214		166.289			162.226			160-823
168,796		171.957			169.182			169.181
176.524	-	179.804		-	178.280			177.956
184.591		137.996			185.896			185.290
193.013	2	196.548			193.825		~	194.869
201.806	2	205.476			204.199			204.927
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CONE ANGLE = 10.00 ANGLE OF ATTACK = 6.00

P / P FREE-STREAM AT MACH NO. SIRN 30.0 L/RN 1.396 83.775 .826 1.616 1.043 78.749 1.935 71.580 1.357 61.840 2.439 1.853 52.539 3.070 2.474 44.730 3.831 3.224 4.721 38.533 4.100 5.729 33.944 5.093 €.837 6.185 30.671 28.784 7.784 7.117 27.118 9.024 8.339 26.037 10.312 9.607 11.632 25.398 10.906 12.976 25.099 12.225 14.317 25.056 13.551 15.662 14.375 25.206 25.507 16.997 16.190 18.316 25.934 17.489 £€.355 26.360 18.513 20.632 26.993 19.770 21.879 27.730 20.998 23.096 28.559 2-2-196 24.281 29.466 23.363 25.434 30.436 24.499 26.557 31.452 25.605 27.651 32.496 26.682 33.552 28.718 27.733 29.553 34.396 28.555 30.576 35.437 29.563 31.579 36.449 30.550 37.421 32.563 31.520 33.532 38.341 32.474 34.488 33,415 39.200 39.991 35.433 34.346 40.709 36.369 35.268 37.300 41.348 35.184 38.042 41.893 36.915 38.968 42.297 37.827 42.711 39.895 38.740 40.826 43.045 39.657 43.300 41.762 40.579 43.478 42.797 41.510 43.663 43.583 42.451 44.634 43.618 43.407

43.588

44.378

45.620

CONE ANGLE = 10.00 ANGLE OF ATTACK = 0.00

P / P FREE-STREAM AT MACH NO. L/RN 30.0 S/RN 45.169 43.520 46.423 46.177 43.387 47.446 47.208 43.206 48.494 45.267 42.986 49.569 49.355 42.737 50.674 50.477 42.469 51.813 51.635 42.191 52.988

54.074 41.638 55.466' 55.102 41.429 56.509 56.433 41.185 57.861

41.911

54.205

52.833

57.820 40.964 59.269 59.268 40.771 60.740 60.783 40.607 62.277

62.369 40.476 63.889 64.035 40.376 65.580 65.787 40.306 67.359

67.633 40.265 69.234 69.183 40.251 70.807

71.219 40.253 72.875 73.374 40.275 75.064 75.660 40.313 77.384

78.087 40.364 79.849 80.670 40.425 82.471

83.422 40.493 85.266 86.359 40.565 88.249 89.501 40.638 91.439

99.501 40.638 91.439 92.175 40.695 94.154 95.737 40.760 97.771

95.566 40.817 101.660 103.690 40.862 105.847

108.139 40.894 110.365 112.947 40.913 115.246

118.149 40.922 120.529 123.787 40.922 126.253

129.901 40.915 132.462 135.166 40.906 137.809

142.122 40.892 144.871

149.412 40.881 152.274 157.057 40.872 160.037

165.073 40.865 168.177 173.481 40.861 176.714

182.299 40.861 185.669

191.548 40.862 195.060 201.249 40.865 204.910

CONE ANGLE = 15.00 ANGLE OF ATTACK = 6.00

.741	
.741	SZRN
.832       2.268       1.403       .826       3.880       1.397       .916       13.064       1         .934       2.306       1.509       .935       3.871       1.509       1.080       12.510       1         1.049       2.306       1.628       1.119       3.774       1.700       1.332       11.702       1         1.246       2.289       1.832       1.328       3.656       1.916       1.700       10.683       2         1.395       2.271       1.985       1.561       3.530       2.158       2.038       9.942       2         1.645       2.239       2.245       1.821       3.407       2.426       2.413       9.265       3         1.832       2.216       2.438       2.105       3.287       2.721       2.822       8.754       3         2.142       2.176       2.759       2.417       3.181       3.044       3.376       8.275       4         2.368       2.148       2.993       2.754       3.109       3.393       3.846       8.023       4         2.734       2.130       3.372       3.116       3.054       3.768       4.336       7.783       5     <	
.934       2.306       1.509       .935       3.871       1.509       1.080       12.510       1         1.049       2.306       1.628       1.119       3.774       1.700       1.332       11.702       1         1.246       2.289       1.832       1.328       3.656       1.916       1.700       10.683       2         1.395       2.271       1.985       1.561       3.530       2.158       2.038       9.942       2         1.645       2.239       2.245       1.821       3.407       2.426       2.413       9.265       3         1.832       2.216       2.438       2.105       3.287       2.721       2.822       8.754       3         2.142       2.176       2.759       2.417       3.181       3.044       3.376       8.275       4         2.368       2.148       2.993       2.754       3.109       3.393       3.846       8.023       4         2.734       2.130       3.372       3.116       3.054       3.768       4.336       7.866       5         2.996       2.123       3.643       3.910       3.000       4.590       5.482       7.790       6	•339
1.049       2.306       1.628       1.119       3.774       1.700       1.332       11.702       1         1.246       2.289       1.832       1.328       3.656       1.916       1.700       10.683       2         1.395       2.271       1.985       1.561       3.530       2.158       2.038       9.942       2         1.645       2.239       2.245       1.821       3.407       2.426       2.413       9.265       3         1.832       2.216       2.438       2.105       3.287       2.721       2.822       8.754       3         2.142       2.176       2.759       2.417       3.181       3.044       3.376       8.275       4         2.368       2.148       2.993       2.754       3.109       3.393       3.846       8.023       4         2.734       2.130       3.372       3.116       3.054       3.768       4.336       7.866       5         2.996       2.123       3.643       3.502       3.918       4.167       4.967       7.783       5         3.713       2.118       4.386       4.339       2.996       5.034       6.002       7.849       6	.490
1.246       2.289       1.832       1.328       3.656       1.916       1.700       10.683       2         1.395       2.271       1.985       1.561       3.530       2.158       2.038       9.942       2         1.645       2.239       2.245       1.821       3.407       2.426       2.413       9.265       3         1.832       2.216       2.438       2.105       3.287       2.721       2.822       8.754       3         2.142       2.176       2.759       2.417       3.181       3.044       3.376       8.275       4         2.368       2.148       2.993       2.754       3.109       3.393       3.846       8.023       4         2.734       2.130       3.372       3.116       3.054       3.768       4.336       7.866       5         2.996       2.123       3.643       3.502       3.918       4.167       4.967       7.783       5         3.713       2.118       4.386       4.339       2.996       5.034       6.002       7.849       6         4.186       2.125       4.875       4.788       3.006       5.498       6.526       7.950       7	.559
1.395       2.271       1.985       1.561       3.530       2.158       2.038       9.942       2         1.645       2.239       2.245       1.821       3.407       2.426       2.413       9.265       3         1.832       2.216       2.438       2.105       3.287       2.721       2.822       8.754       3         2.142       2.176       2.759       2.417       3.181       3.044       3.376       8.275       4         2.368       2.148       2.993       2.754       3.109       3.393       3.846       8.023       4         2.734       2.130       3.372       3.116       3.054       3.768       4.336       7.866       5         2.996       2.123       3.643       3.502       3.918       4.167       4.967       7.783       5         3.415       2.117       4.078       3.910       3.000       4.590       5.482       7.790       6         3.713       2.118       4.386       4.339       2.996       5.034       6.002       7.849       6         4.519       2.133       5.220       5.254       3.025       5.981       7.181       8.124       7	.926
1.645       2.239       2.245       1.821       3.407       2.426       2.413       9.265       3         1.832       2.216       2.438       2.105       3.287       2.721       2.822       8.754       3         2.142       2.176       2.759       2.417       3.181       3.044       3.376       8.275       4         2.368       2.148       2.993       2.754       3.109       3.393       3.846       8.023       4         2.734       2.130       3.372       3.116       3.054       3.768       4.336       7.866       5         2.996       2.123       3.643       3.502       3.918       4.167       4.967       7.783       5         3.415       2.117       4.078       3.910       3.000       4.590       5.482       7.790       6         3.713       2.118       4.386       4.339       2.996       5.034       6.002       7.849       6         4.186       2.125       4.875       4.788       3.006       5.498       6.526       7.950       7         4.519       2.133       5.220       5.254       3.025       5.981       7.181       8.124       7	.302
1.832       2.216       2.438       2.105       3.287       2.721       2.822       8.754       3         2.142       2.176       2.759       2.417       3.181       3.044       3.376       8.275       4         2.368       2.148       2.993       2.754       3.109       3.393       3.846       8.023       4         2.734       2.130       3.372       3.116       3.054       3.768       4.336       7.866       5         2.996       2.123       3.643       3.502       3.018       4.167       4.967       7.783       5         3.415       2.117       4.078       3.910       3.000       4.590       5.482       7.790       6         3.713       2.118       4.386       4.339       2.996       5.034       6.002       7.849       6         4.186       2.125       4.875       4.788       3.006       5.498       6.526       7.950       7         4.519       2.133       5.220       5.254       3.025       5.981       7.181       8.124       7         5.046       2.149       5.765       5.737       3.053       6.481       7.705       8.291       8	•552
2.142       2.176       2.759       2.417       3.181       3.044       3.376       8.275       4         2.368       2.148       2.993       2.754       3.109       3.393       3.846       8.023       4         2.734       2.130       3.372       3.116       3.054       3.768       4.336       7.866       5         2.996       2.123       3.643       3.502       3.018       4.167       4.967       7.783       5         3.415       2.117       4.078       3.910       3.000       4.590       5.482       7.790       6         3.713       2.118       4.386       4.339       2.996       5.034       6.002       7.849       6         4.186       2.125       4.875       4.788       3.006       5.498       6.526       7.950       7         4.519       2.133       5.220       5.254       3.025       5.981       7.181       8.124       7         5.046       2.149       5.765       5.737       3.053       6.481       7.705       8.291       8	.340
2.368       2.148       2.993       2.754       3.109       3.393       3.846       8.023       4         2.734       2.130       3.372       3.116       3.054       3.768       4.336       7.866       5         2.996       2.123       3.643       3.502       3.918       4.167       4.967       7.783       5         3.415       2.117       4.078       3.910       3.000       4.590       5.482       7.790       6         3.713       2.118       4.386       4.339       2.996       5.034       6.002       7.849       6         4.186       2.125       4.875       4.788       3.006       5.498       6.526       7.950       7         4.519       2.133       5.220       5.254       3.025       5.981       7.181       8.124       7         5.046       2.149       5.765       5.737       3.053       6.481       7.705       8.291       8	•463
2.734       2.130       3.372       3.116       3.054       3.768       4.336       7.866       5         2.996       2.123       3.643       3.502       3.018       4.167       4.967       7.783       5         3.415       2.117       4.078       3.910       3.000       4.590       5.482       7.790       6         3.713       2.118       4.386       4.339       2.996       5.034       6.002       7.849       6         4.186       2.125       4.875       4.788       3.006       5.498       6.526       7.950       7         4.519       2.133       5.220       5.254       3.025       5.981       7.181       8.124       7         5.046       2.149       5.765       5.737       3.053       6.481       7.705       8.291       8	.037
2.996       2.123       3.643       3.502       3.918       4.167       4.967       7.783       5         3.415       2.117       4.078       3.910       3.000       4.590       5.482       7.790       6         3.713       2.118       4.386       4.339       2.996       5.034       6.002       7.849       6         4.186       2.125       4.875       4.788       3.006       5.498       6.526       7.950       7         4.519       2.133       5.220       5.254       3.025       5.981       7.181       8.124       7         5.046       2.149       5.765       5.737       3.053       6.481       7.705       8.291       8	.524
3.415     2.117     4.078     3.910     3.000     4.590     5.482     7.790     6       3.713     2.118     4.386     4.339     2.996     5.034     6.002     7.849     6       4.186     2.125     4.875     4.788     3.006     5.498     6.526     7.950     7       4.519     2.133     5.220     5.254     3.025     5.981     7.181     8.124     7       5.046     2.149     5.765     5.737     3.053     6.481     7.705     8.291     8	.331
3.713     2.118     4.386     4.339     2.996     5.034     6.002     7.849     6       4.186     2.125     4.875     4.788     3.006     5.498     6.526     7.950     7       4.519     2.133     5.220     5.254     3.025     5.981     7.181     8.124     7       5.046     2.149     5.765     5.737     3.053     6.481     7.705     8.291     8	.584
4.186     2.125     4.875     4.788     3.006     5.498     6.526     7.950     7       4.519     2.133     5.220     5.254     3.025     5.981     7.181     8.124     7       5.046     2.149     5.765     5.737     3.053     6.481     7.705     8.291     8	.217
4.519 2.133 5.220 5.254 3.025 5.981 7.181 8.124 7 5.046 2.149 5.765 5.737 3.053 6.481 7.705 8.291 8	.756
5.046 2.149 5.765 5.737 3.053 6.481 7.705 8.291 8	.298
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·특별하루스는 - 대표원회에는 - 문이스파골은 - 마스스트 - 이트 - 이트 - 이트	199
	.158
28.231 2.399 29.768 27.428 3.676 28.937 24.557 11.107 25	.965

CONE ANGLE = 15.00 ANGLE OF ATTACK = 9.00

		P /	P FREE-S	TREAM AT	MACH NO	3.		
F\SN	3.5	S/RN	L/RN	5.0	S/RN	L/RN	10.0	S/RN
29.854	2.401	31.449	28.785	3.677	30.342	25.374	11.086	26.811
30.980	2.401	32.614	30.197	3.678	31.804	26.232	11.067	27.699
32.736	2.402	34.432	31.667	3.678	33.326	27.367	11.045	28.874
33.953	2.403	35.693	33.198	3.679	34.911	28.332	11.030	29.873
35.854	2.404	37.661	34.792	3.679	36.561	29.352	11.019	30.929
37.173	2.494	39.026	36.454	3.680	38.281	30.711	11.008	32.336
39.232	2.405	41.158	38.185	3.680	40.074	31.872	11.002	33.538
40.661	2.405	42.638	39.990	3.680	41.942	33.107	10.999	34.816
42.893	2.405	44.948	41.872	3.681	43.890	34.420	10.998	36.176
44.443	2.406	46.552	43.833	3.681	45.921	36.184	11.000	38.002
46.863	2.406	49.057	45.879	3.681	48.039	37.702	11.004	39.574
48.543	2.406	50.797	48.013	3.682	50.248	39.324	11.008	41.253
51.168	2.406	53.514	50.238	3.682	52.551	41.511	11.014	43.517
52.990	2.407	55.401	52.558	3.682	54.954	43.400	11.019	45.473
55.838	2.407	58.350	54.978	3.682	57.459	45.425	11.024	47.569
58.829	2.407	61.446	56.649	3 • 6 8 3	59.189	47.596	11.028	49.817
50.906	2,407	63.596	59.246	3.683	61.877	50.516	11.034	52.840
64.152	2-407	66.957	61.954	3.683	64.681	52.977	11.638	55.387
66.406	2.407	69.291	64.779	3.683	67.605	55.546	11.041	58.247
69.929	2.407	72.938	67.725	3.684	70.656	58.229	11.044	60.825
72.376	2.408	75.471	70.799	3.684	73.838	61.752	11.646	64.472
76.200	2.408	79.430	74.006	3.684	77.158	64.711	11.048	67.536
78.857	2.408	82.180	77.351	3.684	80.621	67-804	11.849	70.737
83.008	2.408	86.47.8		3.684	84.234 88.002	71.865 75.278	11.050 11.051	74.942 78.475
85.892	2.408	89.463 94.129	84.481 88.278	3.684 3.685	91.934	78.845	11.052	82.168
90.399 93.529	2.408 2.408	97.371	92.240	3.685	96.036	82.573	11.052	86. 28
98.423		102.437	96.374		100.315	87-470	11.053	91.198
101.822		105.955			104.780	91.588	11.053	95.360
107.135		111.456			109.437	95.891	11.054	99.815
110.825		115.277			114.297		11.054	105.669
116.594		121.249			119.367		11.055	110.591
120.601		125.397			124.656	111.269		115.735
126.865		131.882				116.463		121.113
131.216		136.386			135.932	123.289	11.056	128.180
138.917		143.427		3.685	141.939	129.029	11.056	134.122
142.741	2.408	148.319	142.634	3.685	148.207	135.029	11.056	140.334
150.127	2.408	155.964	148.950		154.746		11.056	148.496
155.257		161.275		3.685	161.569	149,543		155.360
163.276		169.57-7				156.473		162.535
168.846		175.344				163.719		170.136
177.554		184.359			183.863	n n n		179.893
183.603		190.621				181.246		188.192
193.058		200.410			200.384			196.847
202.993	2.408	210.695	201.535	3.686	209.186	200.615	11.057	208.234

CONE ANGLE = 15.00 ANGLE OF ATTACK = 0.00

		P /	P FREE-S	TREAM AT	MACH NO	•		
LISH	15.0	SZRN	L/RN	20.3	S/RN	L/RN	25.0	S/RN
.741	29.701	1.309	.741	52.226	1.309	.741	81.183	1.309
•962	27.970	1.538	•960	49.087	1.536	•960	76.236	1.535
1.189	26.166	1.773	1.185	45.843	1.769	1.245	69.815	1.831
1.525	23.798	2.121	1.591	40.747	2.189	1.587	63.152	2.185
1.918	21.556	2.528	1.991	36.841	2.603	2.071	55.912	2.686
2.367	19.577	2.992	2.444	33.423	3.072	2.532	50.759	3.163
2.865	18.076	3.508	3.050	30.401	3.699	3.143	46.234	3.796
3.496	16.966	4.067	3.595	28.633	4.264	3.803	43.218	4.479
3.977	16.23?	4.659	4.283	27.308	4.976	4.377	41.680	5.073
4.571	15.804	5.274	4.873	26.737	5.586	5.081	40.763	5.802
5.176	15.624	5.900	5.468	26.549	6.203	5.671	40.612	6.413
5.787	15.641	6.532	6.184	26.725	6.944	6.377	41.005	7.143
6.398	15.815	7.165	6.776	27.130	7-556	7.074	41.868	7.365
7.005	16.110	7794	7.360	27.705	8.162	7.644	42.824	8.456
7.606	16.492	8.416	8.049	28.537	8.875	8.314	44.129	9.149
8.200	16.929	9.G31	8.612	29.296	9.457	8.859	45.294	9.714
8.783	17.398	2.635	9.271	30.256	10.139	9.496	46.773	10.37-3
9.357	17.885	10.228	9.806	31.099	10.693	10.012	48.086	10.907
9.919	18.389	10.811	10.328	31.986	11.234	10.614	49.762	11.538
10.470	18.908	11.381	10.939	33.101	11.867	11.198	51.526	12.134
11.011	19.442	11.941	11.435	34.058	12.381	11.671	53.031	12.625
11.542	19.982	12.490	12.017	35.214	12.983	12.226	54.833	13.199
12.063	20.519	13.030	12.492	36.158	13.474	12.678	56.294	13.667
12.577	21.041	13.562	12.958	37.066	13.957	13.210	57.958	14.218
13.084	21.539	14.087	13.510	38.083	14.528	13.733	59.487	14.759
13.586	22.003	14.607	13.964	38.855	14.998	14.164	60.639	15.205
14.085	22.426	15.123	14.414	39.549	15.464	14.677	61.858	15.736
14.582	22.802	15.638	14.952	40.271	16.021	15.101	62.731	16.176
15.078	23.127	16.152	15.399	40.777	16.484	15.610	63.603	16.702
15.576	23.401	16.667	15.937	41.268	17.041	16.034	64.185	17.141
16.077	23.623	17.186	16.387	41.584	17.507	16.545	64.719	17.671
16.583	23.794	17.709	16.841	41.819	17.977	17.061	65.085	18.204
17.094	23.918	18.239	17.391	42.005	18.546	17.495	65.273	18.654
17.613	23.998	18.776	17.857	42.086	19.028	18.024	65.375	19.201
18.141	24.039	19.323	18.330	42.110	19.518	18.472	65.368	19.665
18.681	24.047	19.882	18.909	42.072	20.118	19.021	65.262	20.235
19.233	24.027	20.453	19.404	41.993	20.630	19.583	65.061	20.316
19.800	23.984	21-040	20.013	41.849	21.261	20.064	64.830	21.314
29.384	23.922	21.645	20.536	41.694	21.802	20.658	64.492	21.928
20.987	23.846	22.269	21.074	41.515	22.360	21.168	64.172	22.457
21.610	23.758	22.914	21.743	41.279	23.051	21.801	63.763	23.111
22.257	23.664	23.584	22.320	41.073	23.649	22.346	63.417	23.676
22.929	23.566	24. 280	23.041	40.831	24.395	23.025	63.017	24.379
23.630	23.470	25.005	23.666	40.641	25.042	23.733	62.650	25.112
24.362	23.389	25.763	24.315	40.468	25.715	24.347	62.380	25.748

CONE ANGLE = 15.00 ANGLE OF ATTACK = 0.00

		F /	P FREE-S	TREAM AT	MACH NO	o.		
L/RN	15.0	S/RN	L/RN	20.0	SZRN	L/RN	25.0	S/RN
25.128	23.299	26.556	25.131	46.291	26.559	25.115	62.105	26.543
25.931	23.230	27.387	25.842	48.170	27.295	25.784	61.921	27.235
26.775	23.174	28.261	26.585	40.076	28.065	26.623	61.755	28.104
27.664	23.131	29.181	27.523	39.995	29.036	27.507	61.647	29.019
28.602	23.101	30.153	28.347	39.955	29.888	28.280	61.598	29.820
29.594	23.083	31.180	29.390	39.933	30.969	29.257	61.579	30.833
30.646	23.076	32.269	30.311	39.934	31.922	30.114	61.590	31.718
31.763	23.077	33.425	31.281	39.948	32.926	31.201	61.629	32.844
32.952	23.085	34.656	32.519	39.978	34.208	32.160	61.678	33.836
34.221	23.099	35.970	33.618	40.011	35.346	33.381	61.751	35.100
35.577	23.116	37.373	35.026	40.060	36.804	34.686	61.839	36.451
37.029	23.137	38.877	36.282	40.106	38.104	35.845	61.919	37.651
38.587	23.159	40.490	37.622	40.155	39.490	37.332	62.020	39.191
40.263	23.183	42.225	39.350	40.215	41.280	38.660	62.163	40.566
42.069	23.206	44.694	40.903	40.262	42.888	40.372	62.195	42.338
44.017	23.227	46.112	42.570	40.302	44.614	42.229	62.270	44.261
46.124	23.243	48.292	44.737	40.339	46.857	43.900	62.318	45.991
48.404	23.255	50.654	46.698	40.360	48.:887	46.071	62.357	48.238
50.877	23.263	53.213	49.257	40.374	51.536	48.034	62.373	50.270
53,559	23.267	55.990	51.580	40.378	53.941	50.594	62.378	52.921
55.472	23.269	59.006	54.095	40.377	56 <u>-5</u> 45	52.917	62.374	55.325
59.604	<b>33.5</b> 69	62.248	57.391	40.372	59.958	55.956	62.360	58.472
62.898	23.270	65.658	50.393	40.366	63.065	59.299	62.342	61.933
66.360	23.270	69.243	63.600	40.359	66.385	62.340	62-326	65.381
70.001	23.270	73.012	67.657	40.355	70.586	66.244	62.312	69.123
73.829	23.270	76.975	71.223	40.355	74.277	69.671	62.310	72.671
77.855	23.272	81.144	75.737	40.357	78.950	74.005	62.314	77.157
82.090	23.273	85.528	79.704	40.361	83.057	78.592	62.321	81.966
86.544	23.275	90.139	83.869	40.366	87.369	82.620	62.330	85.377
91.229	23.277	94.989	89.141	40.372	92.827	87.714	62.342	91.350
96.158	23.279	100.091	93.775	40.377	97.625	92.187	62.351	95.980
101.342	23.281	105.458	99.642	40.383	103.699	97.843	62.362	101.936
105.795			104.800	40.387		102.809	62.370	106.977
112.532	23.284	117.043	110.215	48.391		109.089	62.378	113.479
118.567			117.070		121.742			120.364
124.916		129.864			127.982			126.411
131.595		136.779			134.533			134.759
138.622		144.053			142-829			140.775
146,014		151.707			150.123			149.271
153.792		159.759			159.360		-	158.269
161.976	23.29.0	168.231			167.481			166.173
170.586		177.145			176.010			176.171
179.644		186.523			186.810			184,954
189.176		196.391		-	196.307			196.163
201.272	23.291	208.913	200.611	40.404	208.333	200.226	b2•400	2.07.831

CONE ANGLE = 15.00 ANGLE OF ATTACK = 0.00

P / P FREE-STREAM AT MACH NO.

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S/RN
 L/RN
          30.0
 .741 116.580
                  1.309
 .959 109.422
                  1.535
                  1.829
1.244 199.151
                  2.261
1.660
        88.678
                  2.683
2.068
        30.085
                  3.259
        71.410
2.624
        65.209
                  3.899
3.243
3.794
        51.693
                  4.469
                  5.185
4.481
        59.108
                  5.906
        57.940
5.182
                  6.635
5.886
        57.865
                  7.238
5.468
        58.451
                  7.952
        59.727
7.158
7.833
        61.399
                  8.651
        62.954
                  9.221
3.383
        54.941
                  9.886
9.026
                 10.531
        57.069
 9.649
10.252
                 11.156
        69.364
                 11.661
10.741
        71.400
        73.952
                 12.250
11.310
11.862
        76.558
                 12.823
         78.712
                 13.288
12.312
         81.213
                 13.833
12.839
                  14.368
         83.561
13.355
         85.365
                 14.806
13.778
                  15.326
         87.316
14.280
                  15.840
         89.011
14.777
                  16.352
15.271
         90.439
         91.423
                  16.777
15.682
         92.364
                  17.288
15.176
                  17.891
         93.055
16.671
         93.456
                  18.232
17.088
         93.746
                  18.755
17.592
         93.848
                  19.285
18.105
                  19.826
18.627
         93.783
                  20.285
19.071
         93.613
                  20.850
         93.284
19.616
         92.840
                  21.429
20.176
                  21,926
         92.398
20.656
         91.810
                  22.540
21.249
                  23.176
         91.190
21.863
22.500
         90.575
                  23.836
         90.088
                  24.405
23.050
         89.554
                  25.115
23,736
         89.091
                  25.854
24.450
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#### CONE ANGLE = 15.03 ANGLE OF ATTACK = G.00

P / P FREE-STREAM AT MACH NO. LIPN 30.0 SYRK 25.010 38.767 26.496 25.846 88.458 27.300 25.660 88.237 28.142 27.370 33.116 28.877 28.262 88.039 29.801 29.203 88.025 39.775 30.197 38.059 31.884 31.071 88.117 32.708 32.178 88.213 33.854 33.355 88.333 35.074 34.397 88.446 36.152 35.726 98.594 37.528 37.152 83.746 39.034 38.685 88.893 40.592 40.056 39.002 42.011 41.825 39.113 43.842 43.745 39.194 45.830 45.474 39.238 47.620 47.722 89.264 49.947 50.180 89.258 52.492 52.875 89.254 55.282 55.320 89.233 57.813 59.520 89.200 61.126 62.040 89.168 54.770 65,219 89.147 68.061 59.245 89.138 72.229 73.504 89.144 76.639 77.242 89.154 80.509 81.965 89.169 85.398 89.187 86.963 90.572 92.250 89.206 96.046 96.890 89.221 100.849 102.753 89.235 106.920 108.957 89.247 113.343 114.402 99.253 118.980 121.284 89.259 126.105 128.568 89.264 133.645 136.276 89.268 141.625 143.042 89.270 148.629 151.595 89.272 157.484 89.273 166.857 160.648 169,596 89.275 175.085 178.643 89.277 185.486 189 - 278 39.278 196.497 89.280 208.151

209.535

10

CONE ANGLE = 20.00 ANGLE OF ATTACK = 0.00

		P / 1	P FREE-SI	REAM AT	MACH NO.			
L/RN	3.5	SZRN	LZRN	5.0	SZRN	L/RN	10.0	S/RN
.658	2.956	1.222	.658	5.223	1.222	•658	18.385	1.222
.771	2.976	1.342	.759	5.180	1.330	.818	17.790	1.392
.858	3.003	1.435	.876	5.138	1.453	.968	17.132	1.551
. 998	3.004	1.583	1.048	5.025	1.637	1.223	16.095	1.823
1.150	2.993	1.745	1.239	4.899	1.840	1.464	15.270	2.379
1.313	2.974	1.919	1.449	4.773	2.063	1.726	14.564	2.358
1.550	2.946	2.171	1.676	4.662	2.305	2.065	13.894	2.719
1.741	2.927	2.375	1.919	4.576	2.564	2.363	13.493	3.:37
1.944	2.915	2.590	2.177	4.494	2.838	2.673	13.313	3.366
2.157	2.887	2.817	2.381	4.456	3.055	3.052	13.261	3.770
2.384	2.876	3.058	2.663	4.455	3.356	3.371	13.354	4.169
2.622	2.889	3.312	2.957	4.464	3.669	3,689	13.543	4.447
2.956	2.905	3.667	3.261	4.496	3.991	4.069	13.874	4.851
3.218	2.921	3.946	3.571	4.545	4.322	4.382	14.212	5.184
3.490	2.943	4.236	3.888	4.604	4.659	4.691	14.584	5.514
3 • 77°1	2.967	4.535	4.209	4.673	5.001	5.058	15.041	5.984
4.061	2.991	4.843	4.535	4.747	5.348	5.360	15.410	6.225
4.461	3.026	5.269	4.783	4.805	5.611	5.657	15.762	6.542
4.770	3•05∹3	5.598	5.117	4.884	5.967	6.016	16.165	5.918
5.G88	3.079	5.936	5.455	4.961	6.327	6.301	16.491	7.227
5.415	3.104	6.284	5.799	5.036	6.693	6.590	16.809	7.534
5.750	3.129	6.641	6.148	5.106	7.064	6.934	17.175	7.900
6.096	3.152	7.008	6.503	5.170	7.442	7.219		8.2ú4
6.572	3.181	7.515	6.865	5.228	7.827	7.562		8.569
5.943	3.201	7.91.0	7.235	5.279	8.220	7.849		8.874
7.326	3.219	8.317	7.517	5.313	8.521	8.137		9.181
7.722	3.235	8.739	7.902	5.354	8.931	8.487		9.553
8.133	3.250	9.176	8.298	5.391	9.352	8.783		9.868
8.704	3.267	9.785	8.705	5.423	9.786	9.083		10.187
9.154	3.277	10.263	9.127	5.450	10.234	9.451	18.635	10.579
9.622	3.286	10.761	9.563	5.474	10.698	9.766	18.663	10.914
10.110	3.294	11.281	10.017	5.493	11.181	10.088	18.670	11.257
10.621	3.301	11.824	10.489	5.507	11.684	10.487	18.657	11.682
11.156	3.307	12.394	10.858	5.515	12.076	10.831	18.633	12.847
11.911	3.314	13.197	11.369	5.523	12.620	11.186	18.601	12.425
12.512	3.318	13.836	11.906	5.528	13.192	11.629	18.558	12.897
13.144	3.321	14.509	12.472	5.531	13.794	12.014	18.519	13.306
13.811	3.324	15.219	13.070	5.533	14.430	12.414	18.479	13.733
14.515	3.326	15.968	13.702	5.533	15.103	12.918	18.432	14.269
15.517	3.329	17.034	14.374	5.533	15.818	13.359	18.394	14.738
16.321	3.330	17.890	15.087	5.532	16.577	13.821	18.359	15.230
17.17-2	3.331	18.796	15.653	5.531	17.179	14.406	18.324	15.852
18.076	3.332	19.758	16.452	5.530	18.030	14.922	18.302	16.402
19.035	3.332	29.778	17.307	5.529	18.939	15.467	18.285	16.981
20.041	3.333	21.849	18.223	5.529	19.914	16.162	18.272	17.720

CONE ANGLE = 20.09 ANGLE OF ATTACK = 0.00

P / P FREE-STREAH AT MACH NO.	
L/RN 3.5 S/RN L/RN 5.0 S/RN L/RN 10.0	SZRN
	2,,,,,,
21.454 3.334 23.353 19.205 5.528 20.959 16.779 18.266	18.378
22.572 3.334 24.542 20.261 5.527 22.083 17.572 18.265	
23.741 3.335 25.786 21.397 5.527 23.292 18.280 18.268	
24.965 3.335 27.088 22.620 5.527 24.594 19.036 18.273	
27.585 3.336 29.877 24.994 5.527 27.120 20.897 18.288	
29.470 3.336 31.883 26.472 5.528 28.693 21.846 18.297	
30.961 3.337 33.470 28.030 5.529 30.351 23.083 18.306	
32.523 3.337 35.131 29.672 5.530 32.098 24.205 18.314	
34.157 3.337 36.870 31.402 5.531 33.938 25.419 18.321	
35.868 3.337 38.691 33.225 5.532 35.878 27.011 18.327	
38.275 3.337 41.253 35.146 5.533 37.923 28.462 18.330	
40.180 3.338 43.280 36.654 5.534 39.528 30.037 18.333	
42.174 3.338 45.402 38.760 5.534 41.769 32.107 18.337	
44.262 3.338 47.625 40.980 5.535 44.131 33.991 18.339	36.694
46.449 3.338 49.952 43.319 5.536 46.621 35.989 18.343	38.820
48.739 3.338 52.388 45.785 5.536 49.245 38.531 18.347	41.525
51.960 3.338 55.817 48.384 5.537 52.011 40.775 18.351	43.914
54.510 3.338 58.530 51.124 5.537 54.927 43.143 18.354	46.433
57.180 3.338 61.371 54.012 5.537 58.000 46.155 18.357	
59.975 3.338 64.346 56.281 5.537 60.414 48.816 18.360	
62.903 3.339 67.461 59.449 5.538 63.785 51.624 18.362	
67.022 3.339 71.845 62.788 5.538 67.339 55.197 18.364	
70.283 3.339 75.315 66.309 5.538 71.086 58.354 18.366	
73.697 3.339 78.948 70.020 5.538 75.036 62.373 18.367	
77.272 3.339 82.753 73.933 5.538 79.200 65.925 18.368	
81.017 3.339 86.738 78.059 5.538 83.590 69.672 18.368	
84.938 3.339 90.910 82.409 5.538 88.219 74.442 18.369	
99.455 3.339 96.782 85.825 5.538 91.855 78.659 18.369	-
94.822 3.339 101.429 90.597 5.538 96.933 83.107 18.369	-
99.396 3.339 106.296 95.628 5.538 102.286 88.771 18.370	
104.185 3.339 111.393 100.932 5.538 107.931 93.777 18.370	
109.200 3.339 116.730 106.524 5.538 113.882 99.060 18.370	
115.259 3.339 124.241 112.420 5.538 120.157 165.784 18.370	-
-	119.421
· · · · · · · · · · · · · · · · · · ·	126.396
	134.594
	142.107
	150.134
	160.125
·	169.146
	178.460
	190.444
	201.138
200.631 3.339 214.029 200.083 5.539 213.445 201.098 18.371	214.525

CONE ANGLE = 20.03 ANGLE OF ATTACK = 3.00

		P / F	FREE-S	TREAM AT	MACH NO.	ı		
L/RN	15.8	S/RN	L/RN	20.0	SZRN	L/RN	25.0	S/PN
.658	40.293	1.222	.658	70.961	1.222	.658	113.388	1.222
.814	38.826	1.388	.847	67.593	1,423	.847	105.062	1.423
• 999	36.866	1.585	1.036	64.005	1.624	1.935	99.414	1.523
1.255	34.429	1.857	1.295	59.624	1.900	1.339	91.426	1.346
1.544	32.185	2.164	1.586	55.680	2.210	1.633	85.404	2.260
1.851	30.366	2.502	1.959	52.079	2.606	1.953	80.640	2.505
2.200	28.923	2.862	2.299	49.721	2.969	2.349	76.438	3.222
2.554	28.143	3.240	2.653	48.557	3.345	2.702	74.793	3.797
2.917	27.803	3.626	3.012	48.115	3.726	3.058	74.237	3.776
3.282	27.883	4.014	3.370	48.372	4.108	3.472	74.894	4.217
3.645	28.291	4.400	3.783	49.373	4.548	3.822	76.370	4.589
4.003	28.967	4.782	4.131	50.697	4.918	4.165	78.480	4.954
4.355	29.832	5.156	4.471	52.289	5.280	4.555	81.401	5.369
4.730	30.791	5.523	4.804	53.968	5.633	4.881	83.981	5.715
5.037	31.756	5.882	5.127	55.607	5.978	5.197	86.468	6. 152
5.366	32.681	6.232	5.495	57.440	6.369	5.556	89.283	6.434
5.688	33.575	6.575	5.801	59.003	6.695	5.855	91.724	6.752
5.004	34.466	6.911	6.101	<b>60.600</b>	7.014	6-147	94.239	7.163
6.262	35.216	7.185	6.394	62.223	7.326	6-479	97.218	7.416
6.567	36.113	7.510	6.729	54.091	7.682	6.758	99.718	7.713
5.867	36.981	7 •:839	7.011	55.603	7.982	7032	182.075	8.105
7.164	37.789	8.146	7.290	66.982	8.279	7.347	154.549	8.741
7.459	38.514	8.459	7.566	58.195	8.573	7.616	106.383	8.526
7.752	39.138	8.772	7.842	59.227	8.867	7.927	108.165	8.957
8.046	39.656	9.084	8.163	70.196	9.209	8-194	159.381	9.241
9.341	40.069	9.398	8.440	76.830	9.503	8-462	110.320	9.527
8.639	40.379	9.715	8.719	71.292	9.800	-	111.684	9.862
8.940	40.595	10.035	9.001	71.594	10.100		111.480	10.153
9.246	40.723	10.361	9.287	71.753	10.404		111.668	10.448
9.558	40.775	10.693	9.627	71.790	10.767		111.671	10.798
9.877	40.765	11.032	9.926	71.720	11.984		111.529	11.136
10.204	40.709	11.380	1-0.231	71.581	11.409		111.285	11.420
10.540	40.619	11.738	1.0.545	71.388	11.744		110.894	11.798
10.887	40.506	12.108	10.924	71.108	12.146		110.483	12.132
11.247	40.374	12.490	11.260	70.830	12.504		110.014	12.477
11.619	40.229	12.886	1.1.607	70.526	12.874		109.419	12.894
11.941	40.101	13.228	11.968	70.213	13.257		108.902	13.266
12.341	39.947	13.655	12.342	59.910	13.655		108.412	13.651
12.759	39.801	14.100	12.798	69.593	14.141		167.909	14.120
13.196	39.674	14.565	13.207	59.368	14.576		107.555	14.539
13.654	39.570	15.052	13.633	69.192	15.030		107.280	14.976
14.134	39.492	15.563	14.080	59.064	15.505		107.058	15.518
14.640	39.439	16.101	14.547	68.983	16.002		196.948	15.990
15.172	39.408	16.668	15.122	58.942	16.614		106.905	16.493
15.735	39.398	17.267	15.642	58.944	17.167	15.589	106.923	17.111

CONE ANGLE = 20.00 ANGLE OF ATTACK = 0.00

		P /	P FREE-S	TREAM A	T MACH N	0.		
L/RN	15.0	S/RN		20.0	SZRN	L/RN	25.3	S/RN
16.331	39.402	17.991	16.190	58.971	17.750	16.115	106.978	17.670
16.964	39.417	18.575	16.769	59.013	18.367		107.069	
17.639	79.438	19.292	17.488	69.071	19.132		107.157	
18.359	39.462	20.059	18.147	59.124	19.833		107.250	
19.132	39.488	20.881	18.849	59.180	20.581		107.363	
19.963	39.516	21.765	19.601	69.238	21.389		167.462	
20.860	39.546	22.720	20.408	69.298	22.239		107.560	22.169
21.831	39.577	23.754	21.429	69.363	23.326		107.663	23.131
22.887	39.602	24.877	22.382	59.409	24.340	22.121	107.732	
23.838	39.618	25.890	23.416	59.440	25.440	23.100	167.779	
25.077	39.630	27.208	24.542	69.457	26.639	24.349	107.806	26.433
26.433	39.634	28.651	25.772	<b>%9∙459</b>	27.947	25.524	167.804	27.683
27.921	39.632	30.235	27.353	69.447	29.630	26.808	167.784	29.350
29.557	39.629	31.975	28.852	69.431	31.225		107.748	30.811
31.357	39.627	33.891	30.498	59.416	32.976		107.713	32.480
33.338	39.626	35.999	32.308	59.403	34.903		167.681	34.314
35.518	39.628	38.319	34.649	69.396	37.394		107.656	36.685
37.873	39.634	40.825	36.879	59.400	39.758		167.655	
40.372	39.646	43.484	39.245	69.417	42.286		107.674	41.384
43.025 45.842	39.659	46.338	41.763	69.444	44.965		107.721	44.422
48.832	39.670 39.680	49.305	44.431 47.747	69.472	47.804		107.770	47.193
52.007	39.689	52.488 55.867	50.774	69.499	51.333		107.813	50.128
55.379	39.696	59.454	53.983	59.518 69.535	54.554		107.855	53.772
58.959	39.701	63.264	5 <b>7.3</b> 85	69.547	57.969 61.589		107.885	57.:96
62.761	39.704	67.310	60.992	69.555	65.427		107.912 107.926	61.224
66.799	39.706	71.608	65.476	69.560	70.199		107.926	64.990
70.355	39.707	75.392	69,571	69.563	74.557		167.939	68.980 73.937
74.865	39.708	86.191	73.914	59.565	79.179		167.942	78.461
79.656	39.709	85.290	78.521	59.567	84.081		107.945	83.255
94.745	39.710	90.706	84.249	69.568	90.177		107.948	89.212
90.151	39.710	96.459	89.482	69.569	95.746		167.949	94.649
95.894	39711		95.032		101.653		107.952	
101.995	39.711	109.063	100.919	-	107.918		107.955	
108.477	39.712	115.960	107.164		114.563	106.738		114.109
115.362	39.712	123.287	114.929			113.248		
122.677		131.071				121.337		
130.447		139.340		69.575	138.385	128-722	107.961	137.505
138.702		148.125		59.576	146.880	136.549	107.963	145.834
147.472		157.458		69.577	155.890	146.275	167.964	156.185
156.789		167.373		69.577	167.095	155.154	107.964	165.633
166.686		177.905		69.577	177.333	164-565	107.965	175.648
177.201		189.095		69.578	188.192	176.259	10.7.965	188.092
188.372		200-983		69.578	199.710	186.934	107.966	199.453
209.239	59.7·14	213.611	200.637	69.578	214.035	200.200	107.966	213.569

CONE ANGLE = 20.00 ANGLE OF ATTACK = 0.00

P / P FREE-STREAM AT MACH N	NU	NU	ıU
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L/RN	30.0	SIRN			
. 658	158.583	1.222			
.846	150.861	1.422			
1.034	142.699	1.622			
1.337	131.154	1.944			
1.631	122.444	2.257			
2.005	114.584	2.655			
2.345	109.533	3.017			
	107.021	3.391			
	10 E. 18 Û	3.831			
	107.049	4.207			
	109.574	4.638			
	112.695	5 • 00 0			
	116.016	5.411			
	120.586	5.753			
	124.113	€.086			
5.583		6-463			
	131.656	6.776			
	135.907	7.133			
	139.599	7.431			
	143.787	7.771			
	147.133	8.058			
-	150.152	9.341			
	153.190	8.668			
	155.352	8.947			
	157.358	9.273 9.553			
	158.649 159.687	9.882			
	160.212	10.168			
	160.448	10.457			
	150.425	10.801			
	160.204				
	159.761	11.464			
	159.251				
	158.524				
	157.810				
11.589	157.048	12.855			
11.989	156.156	13.279			
12.344	155.440	13.658			
12.777	154.714	14-118			
13.163	154.208	14.529			
13.634	153.761	15.031			
14-057	153,502	15.480			
14.498	153.351	1.5959			
15. 038	153.297	16: 525			
15.526	153.332	17.044			

CONE ANGLE = 20.03 ANGLE OF ATTACK = 0.00

P / P FREE-STREAM AT MACH NO.

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L/RN
           30.0
                   S/RN
16.125 153.437
                 17.681
16.668 153.559
                 18.259
17.339 153.718
                 18.974
17.951 153.862
                 19.625
18.601 154.010
                 20.316
19.413 154.185
                 21.180
20.161 154.330
                 21.976
21.104 154.477
                 22.983
21.980 154.574
                 23.912
23.094 154.648
                 25.697
24.137 154.676
                 26.208
25.273 154.672
                 27.417
26.731 154.634
                 28.969
28.110 154.584
                 30.435
29.888 154.515
                 32.328
31-575 154-458
                 34.123
33.757 154.413
                 36.445
35.829 154.405
                 38.650
38.090 154.427
                 41.856
40.904 154.492
                 44.050
43.469 154.566
                 46.780
46.652 154.645
                 50.167
49.554 154.701
                 53,255
53.155 154.756
                 57.088
56.439 154.791
                 60.582
59.916 154.815
                 64.283
64.233 154.830
                 68.877
68.178 154.837
                 73.067
                 78.270
73.060 154.842
77.520 154.847
                 83.017
83-060 154-851
                 88.912
88.114 154.854
                 94.291
93.469 154.857
                 99.989
100.120 154.862 107.067
106.188 154.865 113.524
113.725 154.868 121.545
120.601 154.871 128.863
129.143 154.873 137.953
136-936 154.875 146.246
145.193 154.876 155.033
155.449 154.877 165.947
164.807 154.878 175.906
176.430 154.878 188.275
187-036 154-879 199-561
200.209 154.880 213.580
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# MSWG/WOL/TP 75-45

ММ	CH NO =	3,50	CONE ANS	LE = 5.	00 ANSI	LE OF AT	TACK =	1.00
		p /	₽ F¤EE+9	TREAM A	T PLANE	ANGLES		
[\DV	0.	₹ე.		93.	120.	ANGLES 150 •		0.404
		• -		70 •	163.	199 •	180.	<b>Ž</b> \DN
.913	1.372	1.351	1.331	1.291	1.252	1.224	1.214	4° 1.01.
• 957	1.320	1.310	1.280	1.241	1.203	1.175	1.165	1.494 1.538
1.025	1.359	1.347	1.317	1.277	1.238	1.210	1.200	1.506
1.097	1.777	1.365	1.335	1.295	1.256	1.22 9	1.217	155R
1.223	1.396	1.375	1.746	1.306	1.258	1.240	1.230	1.795
1.378	1.391	1.371	1.742	1.393	1.255	1.279	1.229	1.950
1.467	1.377	1.357	1.338	1.390	1,262	1.236	1.226	2-835
1.649	1.356	1.356	1.328	1.291	1.254	1.229	1.219	2.222
1.85 B	1.352	1.343	1.315	1.279	1.244	1.219	1.219	2.432
1.971	1.343	1.333	1.307	1.271	1.237	1.213	1.204	2.545
2.218	1.322	1.713	1.287	1.253	1.221	1.198	1.190	2.794
5.405	1.305	1.291	1.257	1.235	1.234	1.182	1.174	3-05°
2.640	1.209	1.281	1.257	1.226	1.196	1.175	1.167	3.217
3 05 B	1.258	1.253	1.237	1.239	1.180	1.150	1.153	3.537
3.300	1.247	1.239	1.217	1.199	1.153	1.145	1.138	3.0887
7.494	1-+236	1.228	1.207	1 179	1.154	1.135	1.130	3.• ^ ^ / 4 • 075
7.894	1.219	1.213	1.188	1-161	1.136	1.120	1.114	4.476
4.328	1.233	1.195	1.174	1.147	1.122	1.186	1.161	4.911
4.558	1.197	1.199	1.169	1.141	1.115	1.199	1.095	5.143
5 <sub>-•</sub> € 4 A	1.186	1.179	1.158	1.132	1.108	1.092	1.097	5.634
5.576	1.170	1.171	1.150	1.125	1.102	1.087	1.082	5.164
5-, 955	1.175	1.15-9	1.147	1.122	1.130	1.085	1.081	5 • 154 5 • 445
6.444	1.171	1.154	1.143	1.118	1.096	1.082	1.078	7.076
7.076	1.159	1.161	1.140	1-115	1.094	1.031	1.077	7.671
7.439	1.158	1.150	1.140	1.115	1.094	1.091	1.077	8.004
8.138	1.168	1.151	1.140	1.115	1.095	1.081	1.077	8706
8.854	1.469	1.152	1.141	1:117	1.095	1.033	1.090	9.455
9-245	1.171	1.153	1.143	1.119	1.098	1.095	1.081	9.847
10.064	1.174	1.157	1.145	1.122	1.131	1.098	1.085	
10.036	1.179	1.173	1.149	1.125	1.195	1.093	1.099	
11.391	1.198	1.172	1.151	1.128	1.137	1.095	1.691	
12-344	1.184	1.177	1.156	1.132	1.112	1.170	1.096	12.958
13-352	1 • <u>1</u> -9 Q	1.182	1.150	1-+137	1.115		1.101	13.971
13.879	1.191	1.184	1.163	1.130	1.119	1.197	1.103	14.499
14.077	1.196	1.199	1.157	1.143	1.124	1.112	1.108	15.602
16 • 1 38	1.201	1.193	1.172	1.148	1.128	1.116	1.113	16.767
16.74?	1.203	1.195	1-174	1.150	1.130	1.118	1.115	17.373
18001	1.297	1.200	1178	1.154	1.135	1 • 12-3	1.119	18.637
19.329	1.211	1.204	1.132	1.158	1.138	1.127	1.123	19.970
20.020	1.213	1.295	1.184	1.150	1.140	1.129	1.125	29.563
21.456	1.217	1.209	1.188	1.154	1 • 1 4 4	1.13?	1,129	22.105
22.958	1.222	1.213	1.191	1.167	1.147	1.135	1.132	23.623
77.754	1.22?	1.214	1.193	1.168	1.143	1.137	1.133	24.412
25.386	1.225	1.217	1.195	1 - 171	1.151	1.139	1.136	26 + 950
27.132	1.228	1.220	1.198	1.174	1.154	1.142	1.178	27 • 773
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MΛ	CH NO =	3.53	CONE ANG	LE = 5.	00 ANGL	E OF A	ATTACK =	1.09
			ם בסבב כי	F0544 4	<b>.</b>			
LZRN	3.	30.	P FREE-S			ANGL		
<b>C 7</b> × 12	J •	>3.4 •	60.	90•	120.	150.	180.	S/RN
27.993	1.229	1.221	1.199	1.175	1.155	1.14	1.140	28.667
29.841	1.231	1.224	1.202	1.177	1.157	1.145		
31.782	1.234	1.225	1.204	1.179	1.159	1.147		
32.788	1.235	1.227		1.180	1.160	1.147		
34.876	1.236	1.229	1.205	1.182	1.161	1.14		
37.066	1.238	1.23J	1.298	1.183	1.163	1.150		
38.20°C	1.239	1.231	1.299	1. 184	1.163	1.151		
40.552	1.240	1.233	1.210	1.185	1.164	1.152		
43.017	1.242	1.234	1.211	1.196	1.155	1.153	_	
44.294	1.242	1.235	1.212	1.187	1.166	1.153		
46.938	1. • 244	1.235	1.213	1.188	1.167	1.154		
49.708	1.245	1.237	1.214	1.189	1.158	1.155		
51.141	1.245	1.237	1,215	1.189	1.168	1.155		
54.10-9	1.246	1.238	1.215	1.190	1.159	1.156		
57.215	1. 47	1.239	1.216	1.191	1.169	1.157		
58.824	1.247	1.239	1.217	1.191	1.170	1.157	1.153	59.615
62.150	1.248	1.243		1.192	1.170	1.157	1.154	62-, 955
65.63.0	1.249	1.241		1.192	1.171	1.158	1.154	66.448
67.430	1.249	1.241		1.192	1.171	1.158		68255
71.153	1.250	1.242		1.193	1.171	1.158		
75.047	1.250	1.242		1.193	1.17-2	1.159		
77.050 81⊧.223		1.242		1.194	1.172	1.159		
85.575	1.251	1.243		1.194	1.172	1.159		
87.824	1.251 1.252	1.243		1.194	1.173	1.159		
92.474	1.252	1.244 1.244		1.195	1.173	1.160		
97.333	1.252	1.244	_		1.173	1.160		
99.844	1.253	1.245		1.195	1.173	1.160		
105.034	1.253	1.245		1-195 1-196	1.173	1.160		100.793
110.456	1.253	1.245	1.222	1-196	1.17.4	1.160		106.002
113.256	1.254	1.245	1.222	1.196	1.174 1.174	1.151		111-445
119.044	1.254	1.246	1.223	1.196	1.174	1.161		114 - 256
125.089	1.254	1.245	1.223	1-197	1.17.4	1.161		120.066
			1.223	1.197	1.174	1.161		126.134
134.663	1.254	1.245	1.223	1.197	1.175	1.161		129269 135.745
141-399	1.255	1.247	1 • 223	1.197	1.175	1.151		142.507
144.878	1.255	1.247	1.223	1-197	1.175	1.161		145.999
152.065	1.255	1.247	1.224	1.197	1.17-5	1.151		153.213
159.568	1.255	1.247	1.224	1.197	1.17-5	1.162		160.745
163:•443	1.255	1.247	1.224	1-199	1.175	1.162		164.634
171-4446	1.256	1.247	1.224	1-198	1.175	1.162		172.668
179.800	1.256	1.247	1.224	1.198	1.175	1.162		181.054
1 R4= 11-4-	1.256	1.248	1 = 224	1-198	1.176	1.152		185-384
193.023	1.256	1.248	1.224	1.198		1.162		194.327
202-322	1.256	1.248	1.225	1.198	1.17-6	1.152		203.662

HAC	H NO =	5.00	CONE	ANGL	E =	5.00	ANGLE	OF	ATT	TACK =	1.00
		D /	0 ED1	EE-ST	DEAM	ΔΤ	PLANE	ANGL	FS		
L/RN	0.	30.		60.	90		120.	150		180.	S/RN
4,			_			_	4 276	4 25	. 4	1.244	36.072
35.370	1.430	1.414		369	1.31		1.276	1.25		1.246	37.186
36.479	1-434	1.417		37.2	1.32		1.279	1.29		1.251	39.483
38.768	1.439	1.423		378	1:32		1.283	1.25		1.255	41.878
41.153	1.444	1.428		383	1.3		1.288	1.26		1.257	43.112
42.383	1.447	1.430		385	1.33		1.290	1.29		1.261	45.658
44.920	1.451	1.435		389	1.33		1.294	1.26		1.254	48.309
47.560	1.455	1.439		393	1.34		1.297	1.27		1.266	49.674
48.920	1.457	1.440		395	1.3		1.299	1.2		1.268	52.488
51.723	1.461	1.444		398	1.3		1.30-2	1.2		1.270	53.937
53.156	1.452	1.445		400	1.3		1.303	1.2		1.272	56.920
56.139	1.465	1,448		403	1.3		1.306	1.2		1.274	
59.229	1.458	1.451		405	1.3		1.308	1.2		1.275	61.619
60.819	1.469	1.452		406	1.3		1.309	1.2		1.277	
64.092	1.472	1.455		409	1.3		1.311	1.2		1.278	68.318
67 • 493	1.474	1.457		411	1.3		1.313	1.2		1.279	70.073
69.241	1.475	1.458		412	1.3		1.313	1.2		1.280	73.685
72.839	1.477	1.460		414	1.3		1.315	1.2			77.434
76.574	1.479	1.461		415	1.3		1.31-6	1.2		1.281	79.362
70.495	1-479	1.462		416	1.3		1.317	1.2		1.282 1.283	83.325
82.443	1.481	1.464		417	1.3		1.318	1.2			
84.473	1.482	1.464		413	1.3		1.319	1.2		1.284	
88.645	1.483	1.466		419	1.3		1.320	1.2		1.285	
92.973	1.484	1.467		421	1.3		1.321	1.2		1.286	
95•197	1.485	1.467		421	1.3		1.321	1.2			100.715
99.767	1.436	1.468	-	422	1.3		1.322	1.2			105.471
104.504	1.487	1.469		423	1.3		1.323	1.2		4 287	107.914
106.938	1.487	1.470	-	424	1.3		1.323	1.2		1 0 E O I	112.932
111.938	1.488	1.471		424	1.3		1324	1.2		1 0 2 9 9	115.510
114.505	1.489	1.471		425	1.3		1.325	1.2			120.804
119.780	1.489			426	1.3		1.325	1.2			126.290
125.245	1.499		_	426	1.3		1.326		98		129.107
128.051	1.490		_	427	1.3		1.326	1.2			134.892
133.814	1.491	1.474		427	1.3		1.327 1.327		99		140.885
139.784	1.492	1.474	-	428			-	1.2		1.201	143.961
142.848	1.492	1.475		.428	1.3		1.327	1.3		1.291	150.278
149.141	1.493	1.475		.429	1.3		1.328	1.3			153.521
152.372	1.493	1.475		429	1.3		1328				160.179
159.005	1.493	1.476		. 429	1.3		1.328	1.3			167.075
165.874	1.494	1.476		430	1.3		1.329			1.292	170.615
169.401	1.494	1.476	_	•-430 •-30	1.3		1.329	1.3	301	1.202	177.882
176.641	1.494	1.477		430	1.3		1.329			1.202	185.409
184 • 139	1.495	1.477		.431	1.3		1.329		301	4.207	189.272
187.987	1.495	1.477		.431	1.3		1-4330		301	4 . 207	197.205
195.890	1.495	1.478	-	• 431	1.		1.330		302		205.422
204.075	1.495	1.478	1	• 432	1.	377	1.330	1	302	1.6293	20244CC

L/RN 3. 30. 60. 93. 120. 150. 180. S/RN  .913 2.266 2.246 2.193 2.121 2.052 2.002 1.984 1.484 .970 2.168 2.149 7.007 7.026 1.058 1.910 1.892 1.541 1.013 2.270 2.200 2.147 2.076 2.007 1.957 1.039 1.604 1.101 2.227 2.208 2.155 2.085 2.017 1.959 1.951 1.672 1.255 2.191 2.172 2.122 2.055 1.990 1.944 1.927 1.827 1.353 2.162 2.088 2.041 1.978 1.917 1.874 1.882 2.007 1.355 2.106 2.088 2.041 1.978 1.917 1.874 1.882 2.007 1.355 2.106 2.088 2.041 1.978 1.917 1.874 1.882 2.008 1.579 2.039 2.022 1.977 1.917 1.860 1.819 1.804 2.333 2.018 1.963 1.947 1.905 1.849 1.795 1.757 1.743 2.593 2.161 1.922 1.037 1.866 1.812 1.750 1.757 1.743 2.593 2.161 1.922 1.037 1.866 1.812 1.750 1.757 1.743 2.593 2.161 1.922 1.037 1.866 1.812 1.750 1.754 1.711 2.737 2.477 1.839 1.825 1.787 1.737 1.689 1.656 1.644 3.054 2.5651 1.798 1.784 1.747 1.699 1.663 1.656 1.644 3.054 2.5651 1.798 1.798 1.789 1.596 1.554 1.514 1.487 1.477 4.034 2.6551 1.798 1.798 1.747 1.459 1.659 1.552 1.553 1.543 3.608 3.453 1.642 1.630 1.596 1.554 1.514 1.487 1.477 4.034 4.723 1.488 1.477 1.445 1.467 1.571 1.384 1.390 4.761 4.723 1.488 1.477 1.445 1.467 1.371 1.384 1.390 4.761 4.723 1.488 1.477 1.445 1.467 1.371 1.384 1.390 4.761 4.723 1.483 1.522 1.421 1.383 1.394 1.325 1.277 6.626 6.672 1.373 1.522 1.301 1.351 1.323 1.289 1.237 1.211 7.266 6.558 6.672 1.373 1.362 1.330 1.297 1.259 1.237 1.211 7.286 6.558 6.675 1.356 1.338 1.707 1.269 1.225 1.204 1.197 8.428 9.677 1.316 1.330 1.266 1.227 1.191 1.168 1.161 1.121 7.101 1.044 1.312 1.300 1.266 1.225 1.191 1.168 1.161 1.121 7.165 1.563 1.312 1.300 1.266 1.225 1.191 1.168 1.161 1.171 10.181 11.044 1.312 1.300 1.266 1.225 1.191 1.168 1.161 1.167 1.01.656 1.564 1.339 1.330 1.269 1.237 1.234 1.200 1.179 1.171 10.181 11.044 1.312 1.300 1.266 1.225 1.191 1.168 1.161 1.167 1.165 11.563 1.312 1.300 1.266 1.225 1.191 1.168 1.161 1.167 1.162.174 1.194 1.399 1.322 1.309 1.272 1.229 1.120 1.179 1.171 10.181 11.046 1.332 1.330 1.269 1.227 1.191 1.168 1.161 1.162 1.1627 11.565 1.318 1.300 1.266 1.225 1.190 1.163 1.179 1.171 10.181 11.044	!	MACH NO =	5.38	CONE AND	GLE = 5.0	0 ANGE	E OF AT	TACK =	1.00
1.78N   3.   30.   60.   93.   120.   150.   180.   S/RN				0 5055 (	STOCAM AT	D) ANC	ANCLES		
.913									SZRN
.970 2.168	L/R	N 3.	30.	<b>ნ</b> Ս•	91•	129 •	190 •	1004	217
.970	. 91	3 2.266	2.246	2.193	2.121	2.052	2.002	1.984	1.484
1.013 2.220 2.200 2.147 2.076 2.007 1.957 1.939 1.604 1.101 2.227 2.208 2.155 2.085 2.017 1.969 1.951 1.672 1.255 2.191 2.172 2.122 2.055 1.990 1.944 1.927 1.827 1.434 2.136 2.118 2.070 2.055 1.990 1.944 1.827 1.434 2.136 2.118 2.070 2.005 1.943 1.898 1.882 2.007 1.535 2.106 2.088 2.041 1.978 1.917 1.874 1.858 2.108 1.759 2.039 2.022 1.977 1.917 1.860 1.819 1.804 2.333 2.018 1.965 1.947 1.905 1.849 1.795 1.757 1.743 2.593 2.161 1.922 1.907 1.866 1.812 1.760 1.724 1.711 2.737 2.477 1.839 1.825 1.787 1.737 1.689 1.656 1.644 3.054 2.651 1.798 1.844 1.747 1.699 1.653 1.652 1.610 3.228 3.029 1.717 1.705 1.669 1.652 1.553 1.652 1.610 3.228 3.683 1.642 1.630 1.596 1.554 1.514 1.487 1.477 4.034 4.178 1.543 1.553 1.550 1.460 1.423 1.398 1.399 4.761 4.773 1.488 1.477 1.445 1.407 1.371 1.348 1.349 1.395 5.615 1.468 1.452 1.410 1.379 1.381 1.348 1.325 1.317 5.601 5.637 1.421 1.410 1.379 1.381 1.387 1.285 1.287 6.226 6.672 1.373 1.362 1.330 1.223 1.289 1.267 1.285 6.558 6.672 1.373 1.362 1.330 1.223 1.289 1.267 1.260 6.558 8.675 1.326 1.338 1.324 1.200 1.178 1.171 10.181 10.051 1.315 1.300 1.266 1.225 1.290 1.178 1.171 10.181 10.051 1.315 1.300 1.265 1.225 1.990 1.168 1.162 1.162 1.165 1.326 1.379 1.316 1.300 1.265 1.225 1.990 1.168 1.161 1.162 1.165 1.369 1.379 1.316 1.300 1.265 1.225 1.990 1.168 1.161 1.217 1.211 1.439 1.329 1.329 1.227 1.229 1.237 1.214 1.207 8.026 1.379 1.316 1.300 1.265 1.225 1.990 1.168 1.161 1.161 1.162 1.165 1.2653 1.399 1.319 1.306 1.269 1.227 1.191 1.168 1.161 1.162 1.167 1.165 1.2653 1.399 1.319 1.306 1.265 1.225 1.190 1.168 1.161 1.217 1.161 1.162 1.167 1.2657 1.364 1.339 1.328 1.324 1.220 1.179 1.173 1.7.597 1.5649 1.315 1.338 1.224 1.220 1.197 1.174 1.167 10.656 1.373 1.362 1.337 1.266 1.224 1.200 1.173 1.174 1.167 10.656 1.373 1.380 1.329 1.309 1.272 1.229 1.190 1.168 1.162 1.162 1.217 1.211 1.211 1.300 1.266 1.225 1.190 1.168 1.162 1.162 1.217 1.226 1.227 1.329 1.337 1.228 1.234 1.200 1.173 1.174 1.167 10.656 1.225 1.230 1.197 1.190 21.211 1.211 1.211 1.227 1.328 1.339 1.328 1.229 1.229 1.19							1.919	1.892	
1.101						2.007	1.957	1.939	
1.25					2.085				
1.434		_			2.055	1.990			
1.535				2.070	2.005	1.943			
1.759         2.039         2.022         1.977         1.917         1.860         1.819         1.804         2.333           2.018         1.963         1.947         1.905         1.849         1.775         1.773         1.711         2.737           2.477         1.839         1.825         1.787         1.737         1.689         1.656         1.610         3.228           3.029         1.717         1.766         1.669         1.653         1.622         1.610         3.228           3.029         1.717         1.766         1.699         1.658         1.651         3.228           3.029         1.717         1.766         1.659         1.554         1.582         1.553         3.608           3.453         1.542         1.630         1.596         1.554         1.541         1.487         1.446         4.264           4.178         1.543         1.552         1.502         1.446         4.264         4.264           4.178         1.543         1.532         1.500         1.446         1.455         1.445         1.450         1.433         1.391         1.361         1.333         1.460         1.433         1.340         1.317 <td></td> <td></td> <td></td> <td>2.041</td> <td>1.978</td> <td>1.917</td> <td></td> <td></td> <td></td>				2.041	1.978	1.917			
2.018       1.963       1.947       1.905       1.849       1.775       1.757       1.743       2.953         2.161       1.922       1.907       1.866       1.812       1.760       1.724       1.711       2.737         2.651       1.798       1.784       1.747       1.669       1.653       1.622       1.610       3.228         3.029       1.717       1.765       1.669       1.654       1.582       1.553       1.543       3.608         3.453       1.6507       1.595       1.554       1.487       1.477       4.034         4.178       1.543       1.552       1.500       1.460       1.423       1.398       1.399       4.761         4.723       1.488       1.477       1.445       1.407       1.371       1.348       1.349       5.308         5.015       1.463       1.452       1.333       1.348       1.339       1.317       5.601         5.037       1.441       1.437       1.341       1.307       1.285       1.278       6.276         6.672       1.473       1.362       1.330       1.259       1.237       1.231       7.264         7.430       1.350       <				1.977	1.917				
2.161			1.947	1.905	1.849				
2.477       1.839       1.825       1.787       1.689       1.656       1.656       1.656       3.228         3.029       1.717       1.765       1.669       1.653       1.653       1.553       3.228         3.453       1.642       1.630       1.596       1.554       1.514       1.487       1.477       4.034         2.683       1.667       1.595       1.500       1.460       1.423       1.438       1.390       4.761         4.178       1.483       1.477       1.445       1.467       1.371       1.348       1.390       4.761         4.723       1.488       1.477       1.445       1.467       1.371       1.348       1.340       5.308         5.015       1.463       1.472       1.410       1.379       1.341       1.307       1.285       1.278       6.226         6.672       1.373       1.362       1.330       1.293       1.289       1.287       1.226       1.278       6.226         6.672       1.373       1.322       1.297       1.259       1.226       1.241       1.207       7.430       1.362       1.330       1.293       1.279       1.259       1.226       1.241			1.987	1.866	1.812				
2.651			1.825	1.787	1.737				
3.453			1.784	1.747					
3.453       1.642       1.630       1.596       1.575       1.514       1.487       4.477       4.034         4.178       1.543       1.532       1.500       1.460       1.423       1.398       1.390       4.761         4.178       1.543       1.572       1.500       1.460       1.371       1.398       1.390       4.761         4.178       1.463       1.477       1.445       1.407       1.371       1.348       1.340       5.308         5.015       1.463       1.452       1.421       1.383       1.348       1.327       5.601         5.637       1.421       1.410       1.379       1.341       1.307       1.285       1.278       6.276         6.672       1.373       1.362       1.330       1.293       1.259       1.237       1.231       7.264         7.430       1.350       1.338       1.307       1.259       1.225       1.214       1.207       8.026         7.631       1.340       1.329       1.259       1.226       1.204       1.197       8.428         8.675       1.376       1.315       1.283       1.244       1.200       1.178       1.161       1.017			1.705	1.669	1.624				
3.683       1.607       1.595       1.567       1.512       1.482       1.455       1.446       4.264         4.178       1.543       1.532       1.500       1.460       1.423       1.398       1.390       4.761         4.723       1.488       1.477       1.445       1.467       1.371       1.348       1.340       5.508         5.015       1.483       1.471       1.421       1.383       1.348       1.325       1.317       5.601         5.637       1.421       1.410       1.379       1.341       1.307       1.285       1.278       6.226         6.672       1.373       1.362       1.330       1.293       1.259       1.267       1.260       6.558         6.672       1.373       1.362       1.330       1.293       1.259       1.226       1.204       1.97       8.026         7.831       1.340       1.329       1.297       1.259       1.226       1.204       1.197       8.428         8.675       1.376       1.315       1.283       1.244       1.210       1.189       1.171       10.181         10.0551       1.315       1.303       1.269       1.235       1.191			1.630	1.596	1.554				
4.773	3.68	3 1.697	1.595						
5.015       1.463       1.452       1.421       1.383       1.348       1.325       1.317       5.601         5.637       1.421       1.410       1.379       1.341       1.307       1.285       1.278       6.276         6.969       1.403       1.392       1.361       1.323       1.289       1.267       1.260       6.558         6.672       1.373       1.362       1.330       1.259       1.237       1.231       7.264         7.430       1.350       1.338       1.307       1.259       1.235       1.214       1.237       7.264         7.430       1.350       1.338       1.297       1.259       1.226       1.204       1.197       8.428         8.675       1.326       1.315       1.283       1.244       1.210       1.189       1.182       9.275         9.577       1.318       1.306       1.273       1.230       1.196       1.174       1.167       10.481         11.044       1.312       1.300       1.265       1.225       1.191       1.168       1.161       1.165         11.563       1.319       1.300       1.265       1.225       1.191       1.168       1.161	4.17	8 1.543							
5.637       1.421       1.410       1.379       1.341       1.307       1.285       1.278       6.226         6.672       1.373       1.362       1.330       1.293       1.259       1.237       1.261       6.558         7.430       1.350       1.338       1.307       1.269       1.235       1.214       1.207       8.026         7.831       1.340       1.329       1.297       1.259       1.226       1.214       1.207       8.026         8.675       1.326       1.315       1.283       1.244       1.210       1.189       1.182       9.275         9.577       1.318       1.306       1.273       1.234       1.200       1.178       1.171       10.181         10.051       1.315       1.303       1.269       1.225       1.191       1.167       1.167       10.656         11.044       1.312       1.300       1.266       1.225       1.191       1.168       1.161       12.174         12.649       1.312       1.300       1.266       1.225       1.191       1.168       1.161       12.174         12.649       1.312       1.300       1.266       1.225       1.189       1.167 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
6.639       1.403       1.302       1.361       1.323       1.289       1.267       1.260       6.558         6.672       1.373       1.362       1.330       1.293       1.259       1.237       1.231       7.264         7.430       1.350       1.338       1.307       1.269       1.235       1.214       1.207       8.026         7.831       1.340       1.329       1.297       1.259       1.226       1.204       1.197       8.428         8.675       1.376       1.315       1.283       1.244       1.210       1.189       1.182       9.275         9.577       1.318       1.306       1.273       1.196       1.174       1.167       10.656         11.044       1.312       1.300       1.266       1.226       1.191       1.169       1.162       11.653         11.563       1.312       1.300       1.265       1.225       1.190       1.168       1.161       12.174         12.649       1.314       1.301       1.266       1.225       1.189       1.167       1.160       13.265         13.799       1.319       1.306       1.269       1.227       1.911       1.168       1.162 <td>5.01</td> <td>5 1.463</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	5.01	5 1.463							
6.672 1.373 1.362 1.330 1.269 1.235 1.214 1.287 8.026 7.831 1.340 1.329 1.297 1.259 1.226 1.204 1.197 8.428 8.675 1.326 1.315 1.283 1.244 1.210 1.189 1.182 9.275 9.577 1.318 1.306 1.273 1.234 1.200 1.178 1.171 10.181 10.051 1.315 1.303 1.269 1.225 1.191 1.169 1.162 1.656 11.044 1.312 1.300 1.266 1.225 1.191 1.169 1.162 1.653 11.563 1.312 1.300 1.266 1.225 1.191 1.169 1.162 1.653 11.563 1.312 1.300 1.265 1.225 1.190 1.168 1.161 12.174 12.649 1.314 1.301 1.266 1.225 1.191 1.168 1.161 12.174 12.649 1.314 1.301 1.266 1.225 1.191 1.168 1.161 12.174 13.99 1.322 1.309 1.272 1.229 1.191 1.168 1.162 14.419 14.399 1.322 1.309 1.272 1.229 1.192 1.170 1.163 15.021 15.648 1.329 1.315 1.278 1.229 1.192 1.170 1.163 15.021 15.648 1.329 1.315 1.278 1.229 1.192 1.170 1.163 15.021 16.965 1.338 1.324 1.285 1.240 1.203 1.179 1.173 17.597 17.649 1.342 1.328 1.289 1.244 1.206 1.183 1.176 18.284 19.071 1.352 1.337 1.297 1.252 1.213 1.189 1.182 19.711 20.555 1.362 1.347 1.306 1.260 1.220 1.197 1.190 21.211 21.340 1.367 1.352 1.337 1.297 1.252 1.213 1.189 1.182 19.711 22.947 1.377 1.362 1.337 1.297 1.252 1.213 1.189 1.182 19.711 20.555 1.301 1.362 1.347 1.306 1.260 1.220 1.197 1.190 21.211 21.340 1.367 1.352 1.311 1.264 1.224 1.200 1.193 21.989 22.947 1.377 1.362 1.331 1.264 1.272 1.232 1.208 1.201 23.602 23.779 1.382 1.366 1.324 1.276 1.232 1.208 1.201 23.602 23.779 1.382 1.366 1.324 1.276 1.236 1.212 1.205 24.437 25.502 1.301 1.376 1.333 1.284 1.276 1.236 1.212 1.205 24.437 28.238 1.405 1.389 1.345 1.296 1.254 1.251 1.226 1.212 26.166 27.305 1.400 1.384 1.341 1.292 1.251 1.226 1.229 30.849 32.181 1.420 1.464 1.360 1.309 1.268 1.243 1.229 30.849	5.63	7 1.421							
7.430 1.350 1.338 1.307 1.269 1.235 1.214 1.207 8.026 7.831 1.340 1.329 1.297 1.259 1.226 1.204 1.197 8.428 8.675 1.326 1.315 1.283 1.244 1.210 1.189 1.182 9.275 9.577 1.318 1.306 1.273 1.234 1.200 1.173 1.171 10.181 10.051 1.315 1.303 1.269 1.230 1.196 1.174 1.167 10.656 11.044 1.312 1.300 1.266 1.225 1.191 1.160 1.162 1.653 11.563 1.312 1.300 1.266 1.225 1.190 1.168 1.161 12.174 12.649 1.314 1.301 1.266 1.225 1.189 1.167 1.160 13.265 13.799 1.319 1.306 1.269 1.227 1.191 1.168 1.162 14.419 14.399 1.322 1.309 1.272 1.229 1.192 1.170 1.163 15.021 15.648 1.329 1.315 1.278 1.234 1.197 1.174 1.167 16.275 16.965 1.338 1.324 1.285 1.240 1.203 1.179 1.173 17.597 17.649 1.342 1.328 1.289 1.244 1.206 1.183 1.179 1.173 17.597 17.649 1.342 1.328 1.289 1.244 1.206 1.183 1.176 18.284 19.071 1.352 1.337 1.297 1.252 1.213 1.189 1.182 1.9711 20.555 1.362 1.347 1.306 1.260 1.220 1.197 1.190 21.211 21.340 1.367 1.352 1.337 1.297 1.252 1.213 1.189 1.182 19.711 21.340 1.367 1.352 1.337 1.297 1.252 1.213 1.189 1.182 19.711 21.340 1.367 1.352 1.337 1.297 1.252 1.213 1.189 1.182 19.711 21.340 1.367 1.352 1.331 1.264 1.224 1.200 1.193 21.989 22.947 1.377 1.362 1.320 1.272 1.232 1.208 1.201 23.602 23.779 1.382 1.366 1.324 1.276 1.236 1.212 1.205 24.437 25.502 1.301 1.376 1.333 1.284 1.294 1.214 1.212 1.205 24.437 25.502 1.301 1.376 1.333 1.284 1.294 1.251 1.226 1.219 7.977 28.238 1.405 1.389 1.345 1.296 1.254 1.230 1.223 28.913 30.166 1.413 1.397 1.353 1.303 1.261 1.237 1.229 30.849 32.181 1.420 1.404 1.360 1.360 1.309 1.268 1.243 1.225	F.95								
7.831 1.340 1.329 1.297 1.259 1.226 1.204 1.197 8.428 8.675 1.326 1.315 1.283 1.244 1.210 1.189 1.182 9.275 9.577 1.318 1.306 1.273 1.234 1.200 1.178 1.171 10.181 10.051 1.315 1.303 1.269 1.230 1.196 1.174 1.167 10.656 11.044 1.312 1.300 1.266 1.225 1.191 1.160 1.162 11.653 11.563 1.312 1.300 1.265 1.225 1.190 1.168 1.161 12.174 12.649 1.314 1.301 1.266 1.225 1.190 1.168 1.161 12.174 12.649 1.314 1.301 1.266 1.225 1.189 1.167 1.160 13.265 13.379 1.319 1.306 1.269 1.227 1.191 1.168 1.162 14.419 14.399 1.322 1.309 1.272 1.229 1.192 1.170 1.163 15.021 15.648 1.329 1.315 1.278 1.234 1.197 1.174 1.167 1.62 14.419 15.648 1.329 1.315 1.278 1.234 1.197 1.174 1.167 1.62.75 16.965 1.338 1.324 1.285 1.240 1.203 1.179 1.173 17.597 17.649 1.342 1.328 1.289 1.244 1.206 1.183 1.176 18.284 19.071 1.352 1.337 1.297 1.252 1.213 1.189 1.182 19.711 20.555 1.362 1.347 1.306 1.260 1.220 1.197 1.190 21.211 21.340 1.367 1.352 1.337 1.297 1.252 1.213 1.189 1.182 19.711 21.340 1.367 1.352 1.337 1.297 1.252 1.213 1.189 1.182 19.711 21.340 1.367 1.352 1.311 1.264 1.224 1.200 1.193 21.989 22.947 1.377 1.362 1.324 1.276 1.232 1.208 1.201 23.602 23.602 23.947 1.376 1.333 1.284 1.276 1.236 1.212 1.205 24.437 25.502 1.301 1.376 1.333 1.284 1.276 1.236 1.212 1.205 24.437 25.502 1.301 1.376 1.384 1.345 1.296 1.254 1.230 1.223 28.913 30.166 1.413 1.397 1.353 1.303 1.261 1.237 1.229 30.849 32.181 1.420 1.404 1.360 1.309 1.268 1.243 1.226 32.871									
8.675       1.326       1.315       1.283       1.244       1.210       1.189       1.182       9.275         9.577       1.318       1.306       1.273       1.234       1.200       1.178       1.171       10.181         10.051       1.315       1.303       1.269       1.230       1.196       1.174       1.167       10.656         11.044       1.312       1.300       1.266       1.225       1.191       1.169       1.162       1.653         11.563       1.312       1.300       1.266       1.225       1.191       1.169       1.162       1.653         11.563       1.314       1.300       1.266       1.225       1.191       1.168       1.161       12.174         12.649       1.314       1.300       1.266       1.227       1.189       1.167       1.160       13.265         13.799       1.319       1.306       1.269       1.227       1.191       1.168       1.162       14.419         14.399       1.322       1.309       1.272       1.192       1.170       1.163       15.021         15.648       1.322       1.315       1.229       1.192       1.170       1.163       15.									
9.577 1.318 1.306 1.273 1.234 1.200 1.173 1.171 10.181 10.051 1.315 1.303 1.269 1.230 1.196 1.174 1.167 10.656 11.044 1.312 1.300 1.266 1.225 1.191 1.169 1.162 1.653 1.563 1.312 1.300 1.265 1.225 1.190 1.168 1.161 12.174 12.649 1.314 1.301 1.266 1.225 1.189 1.167 1.160 13.265 13.799 1.319 1.306 1.269 1.227 1.191 1.168 1.162 14.419 14.399 1.322 1.309 1.272 1.229 1.192 1.170 1.163 15.021 15.648 1.329 1.315 1.278 1.234 1.197 1.174 1.167 16.275 16.965 1.338 1.324 1.285 1.240 1.203 1.179 1.173 17.597 17.649 1.342 1.328 1.289 1.244 1.206 1.183 1.176 18.284 19.071 1.352 1.337 1.297 1.252 1.213 1.189 1.182 19.711 20.555 1.362 1.347 1.306 1.260 1.220 1.197 1.190 21.211 21.340 1.360 1.352 1.337 1.297 1.252 1.213 1.189 1.182 19.711 21.340 1.360 1.352 1.337 1.297 1.254 1.220 1.197 1.190 21.211 21.340 1.367 1.352 1.337 1.297 1.252 1.213 1.189 1.182 19.711 21.340 1.360 1.360 1.260 1.220 1.197 1.193 21.989 27.947 1.377 1.362 1.331 1.264 1.264 1.220 1.197 1.190 21.211 21.5550 1.362 1.376 1.333 1.284 1.272 1.232 1.208 1.201 23.602 27.305 1.400 1.384 1.341 1.292 1.251 1.226 1.212 1.205 24.437 28.238 1.405 1.389 1.345 1.296 1.254 1.230 1.223 28.913 30.166 1.413 1.397 1.353 1.303 1.261 1.263 1.229 30.849 32.181 1.420 1.404 1.360 1.360 1.309 1.268 1.243 1.236 32.871									
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11.563									
12.649       1.314       1.301       1.266       1.225       1.189       1.167       1.160       13.265         13.799       1.319       1.306       1.269       1.227       1.191       1.168       1.162       14.419         14.399       1.322       1.309       1.272       1.229       1.192       1.170       1.163       15.021         15.648       1.329       1.315       1.278       1.234       1.197       1.174       1.167       16.275         16.965       1.338       1.324       1.285       1.240       1.203       1.179       1.173       17.597         17.649       1.342       1.328       1.289       1.244       1.206       1.183       1.176       18.284         19.071       1.352       1.337       1.297       1.252       1.213       1.189       1.182       19.711         20.565       1.362       1.347       1.306       1.260       1.220       1.197       1.190       21.211         21.340       1.367       1.352       1.311       1.264       1.224       1.200       1.193       21.289         22.947       1.377       1.362       1.320       1.272       1.232 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
13.799									
14.399       1.322       1.309       1.272       1.229       1.192       1.170       1.163       15.021         15.648       1.329       1.315       1.278       1.234       1.197       1.174       1.167       16.275         16.965       1.338       1.324       1.285       1.240       1.203       1.179       1.173       17.597         17.649       1.342       1.328       1.289       1.244       1.206       1.183       1.176       18.284         19.071       1.352       1.337       1.297       1.252       1.213       1.189       1.182       19.711         20.565       1.362       1.347       1.306       1.260       1.220       1.197       1.190       21.211         21.340       1.367       1.352       1.311       1.264       1.224       1.200       1.193       21.989         22.947       1.377       1.362       1.320       1.272       1.232       1.208       1.201       23.602         23.779       1.382       1.366       1.324       1.276       1.236       1.212       1.205       24.437         25.502       1.301       1.376       1.333       1.284       1.244 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
15.648       1.329       1.315       1.278       1.234       1.197       1.174       1.167       15.275         16.965       1.338       1.324       1.285       1.240       1.203       1.179       1.173       17.597         17.649       1.342       1.328       1.289       1.244       1.206       1.183       1.176       18.284         19.071       1.352       1.337       1.297       1.252       1.213       1.189       1.182       19.711         20.555       1.362       1.347       1.306       1.260       1.220       1.197       1.190       21.211         21.340       1.367       1.352       1.311       1.264       1.224       1.200       1.193       21.989         22.947       1.377       1.362       1.320       1.272       1.232       1.208       1.201       23.602         23.779       1.382       1.366       1.324       1.276       1.236       1.212       1.205       24.437         25.502       1.301       1.376       1.333       1.284       1.244       1.219       1.212       26.166         27.305       1.400       1.384       1.341       1.292       1.251 <t< td=""><td></td><td>•</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>		•							
16.965       1.338       1.324       1.285       1.240       1.203       1.179       1.173       17.597         17.649       1.342       1.328       1.289       1.244       1.206       1.183       1.176       18.284         19.071       1.352       1.337       1.297       1.252       1.213       1.189       1.182       19.711         20.565       1.362       1.347       1.306       1.260       1.220       1.197       1.190       21.211         21.340       1.367       1.352       1.311       1.264       1.224       1.200       1.193       21.989         22.947       1.377       1.362       1.320       1.272       1.232       1.208       1.201       23.602         23.779       1.382       1.366       1.324       1.276       1.236       1.212       1.205       24.437         25.502       1.301       1.376       1.333       1.284       1.244       1.219       1.212       26.156         27.305       1.400       1.384       1.341       1.292       1.251       1.226       1.219       27.977         28.238       1.405       1.389       1.345       1.296       1.254 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
17.649       1.342       1.328       1.289       1.244       1.296       1.183       1.176       18.284         19.071       1.352       1.337       1.297       1.252       1.213       1.189       1.182       19.711         20.565       1.362       1.347       1.306       1.260       1.220       1.197       1.190       21.211         21.340       1.367       1.352       1.311       1.264       1.224       1.200       1.193       21.989         22.947       1.377       1.362       1.320       1.272       1.232       1.208       1.201       23.602         23.779       1.382       1.366       1.324       1.276       1.236       1.212       1.205       24.437         25.502       1.301       1.376       1.333       1.284       1.244       1.219       1.212       26.166         27.305       1.400       1.384       1.341       1.292       1.251       1.226       1.219       27.977         28.238       1.405       1.389       1.345       1.296       1.254       1.230       1.223       28.913         30.166       1.413       1.397       1.353       1.303       1.261 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
19.071       1.352       1.337       1.297       1.252       1.213       1.189       1.182       19.711         20.555       1.362       1.347       1.306       1.260       1.220       1.197       1.190       21.211         21.340       1.367       1.352       1.311       1.264       1.224       1.200       1.193       21.989         22.947       1.377       1.362       1.320       1.272       1.232       1.208       1.201       23.602         23.779       1.382       1.366       1.324       1.276       1.236       1.212       1.205       24.437         25.502       1.301       1.376       1.333       1.284       1.244       1.219       1.212       26.166         27.305       1.400       1.384       1.341       1.292       1.251       1.226       1.219       27.977         28.238       1.405       1.389       1.345       1.296       1.254       1.230       1.223       28.913         30.166       1.413       1.397       1.353       1.303       1.261       1.237       1.229       30.849         32.481       1.420       1.404       1.360       1.309       1.268 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
20.565       1.362       1.347       1.306       1.260       1.220       1.197       1.190       21.211         21.340       1.367       1.352       1.311       1.264       1.224       1.200       1.193       21.989         22.947       1.377       1.362       1.320       1.272       1.232       1.208       1.201       23.602         23.779       1.382       1.366       1.324       1.276       1.236       1.212       1.205       24.437         25.502       1.301       1.376       1.333       1.284       1.244       1.219       1.212       26.156         27.305       1.400       1.384       1.341       1.292       1.251       1.226       1.219       27.977         28.238       1.405       1.389       1.345       1.296       1.254       1.230       1.223       28.913         30.166       1.413       1.397       1.353       1.303       1.261       1.237       1.229       30.849         32.481       1.420       1.404       1.360       1.309       1.268       1.243       1.236       32.871									
21.340       1.367       1.352       1.311       1.264       1.224       1.200       1.193       21.989         22.947       1.377       1.362       1.320       1.272       1.232       1.208       1.201       23.602         23.779       1.382       1.366       1.324       1.276       1.236       1.212       1.205       24.437         25.502       1.301       1.376       1.333       1.284       1.244       1.219       1.212       26.156         27.305       1.400       1.384       1.341       1.292       1.251       1.226       1.219       27.977         28.238       1.405       1.389       1.345       1.296       1.254       1.230       1.223       28.913         30.166       1.413       1.397       1.353       1.303       1.261       1.237       1.229       30.849         32.481       1.420       1.404       1.360       1.309       1.268       1.243       1.236       32.871									
27.947 1.377 1.362 1.320 1.272 1.232 1.208 1.201 23.602 23.779 1.382 1.366 1.324 1.276 1.236 1.212 1.205 24.437 25.502 1.391 1.376 1.333 1.284 1.244 1.219 1.212 26.166 27.305 1.400 1.384 1.341 1.292 1.251 1.226 1.219 27.977 28.238 1.405 1.389 1.345 1.296 1.254 1.230 1.223 28.913 30.166 1.413 1.397 1.353 1.303 1.261 1.237 1.229 30.849 32.481 1.420 1.404 1.360 1.309 1.268 1.243 1.236 32.871									
23.779       1.382       1.366       1.324       1.276       1.236       1.212       1.205       24.437         25.502       1.301       1.376       1.333       1.284       1.244       1.219       1.212       26.166         27.305       1.400       1.384       1.341       1.292       1.251       1.226       1.219       27.977         28.238       1.405       1.389       1.345       1.296       1.254       1.230       1.223       28.913         30.166       1.413       1.397       1.353       1.303       1.261       1.237       1.229       30.849         32.181       1.420       1.404       1.360       1.309       1.268       1.243       1.236       32.871									
25.502 1.301 1.376 1.333 1.284 1.244 1.219 1.212 26.166 27.305 1.400 1.384 1.341 1.292 1.251 1.226 1.219 27.977 28.238 1.405 1.389 1.345 1.296 1.254 1.230 1.223 28.913 30.166 1.413 1.397 1.353 1.303 1.261 1.237 1.229 30.849 32.181 1.420 1.404 1.360 1.309 1.268 1.243 1.236 32.871									
27.305 1.400 1.384 1.341 1.292 1.251 1.226 1.219 27.977 28.238 1.405 1.389 1.345 1.296 1.254 1.230 1.223 28.913 30.166 1.413 1.397 1.353 1.303 1.261 1.237 1.229 30.849 32.181 1.420 1.404 1.360 1.309 1.268 1.243 1.236 32.871									26.156
28.238 1.405 1.389 1.345 1.296 1.254 1.230 1.223 28.913 30.166 1.413 1.397 1.353 1.303 1.261 1.237 1.229 30.849 32.481 1.420 1.404 1.360 1.309 1.268 1.243 1.236 32.871									
30.166 1.413 1.397 1.353 1.303 1.261 1.237 1.229 30.849 32.181 1.420 1.404 1.360 1.309 1.268 1.243 1.236 32.871									28.913
32.181 1.420 1.404 1.360 1.309 1.268 1.243 1.236 32.871									30.849
With the state of								1.236	
33.221 1.424 1.407 1.363 1.312 1.279 1.246 1.238 33.916						1.279	1.246		33.916

MACH NO = 10.00	CONF ANGLE =	5.00	ANGLE CF ATTACK =	1.00
Р	/ P FREE-STREAM	AT	PLANE ANGLES	

		P / P	FREE-SI	TREAM AT	PLANE	ANGLES		
L/RK	0.	30.	60.	90.	120.	150.	180.	S/RN
								_ ,,
• 913	7.495	7.425	7.235	6.983	6.739	6.563	6.500	1.484
<b>-</b> 965	7.148	7.080	6.894	6.648	6.489	6.238	6.177	1.536
1.025	7.256	7.187	7.002	6.755	6.515	6.343	6.281	1.596
1.179	7.066	7.001	6.827	6.595	6.370	6.210	6.152	1.750
1.365	6.754	6.693	6.529	6.309	6.098	5.947	5.893	1.937
1.574	6.417	6.359	6.206	6.002	5.806	5.666	5.616	2.147
1.689	6.238	6.183	6.035	5.840	5.651	5.517	5.469	2.262
1.942	5.865	5.814	5.679	5.499	5.327	5.205	5.161	2.517
2.233	5.477	5.431	5.308	5.145	4.990	4.881	4.842	2.808
2.566	5.085	5.043	4.931	4.785	4.646	4.550	4.516	3.143
2.947	4.702	4.665	4.562	4.429	4.304	4.219	4.188	3.525
3.369	4.345	4.310	4.216	4.095	3.982	3.905	3.878	3.949
3.596	4.176	4.143	4.052	3.937	3.829	3.757	3.731	4.176
4.083	3.862	3.831	3.746	3.640	3.543	3. +77	3.455	4.666
4.616	3.580	3.551	3.471	3.371	3.281	3.221	3-201	5.201
5.197	3.332	3.304	3.227	3.132	3.047	2.992	2.97.3	5.784
5.825	3.116	3.089	3.014	2.922	2.841	2.788	2.771	6.415
6.503	2.929	2.902	2.828	2.739	2.660	2.609	2.593	7.195
6.860	2.845	2.819	2.745	2.657	2.579	2.529	2.512	7.454
7.612	2.696	2.670	2.597	2.509	2.433	2.383	2.368	8.208
3.413	2.569	2.543	2.470	2.382	2.306	2.258	2.242	9.013
9.265	2.462	2.435	2.361	2.274	2.197	2.149	2.133	9.867
19.165	2.370	2.343	2.269	2.180	2.104	2.055	2 • 0 4 0	10.772
11.116	2.293	2.266	2.190	2.101	2.024	1.975	1.959	11.726
11.610	2.260	2.232	2.155	2.065	1.988	1.939	1.923	12.221
1-2.634	2.201	2.173	2.094	2.003	1.924	1.874	1.859	13.250
13.708	2.153	2.124	2.043	1.950	1.870	1.819	1.803	14.328
14.831	2.114	2.084	2.001	1.905	1.823	1.772	1.756	15.455
16.003	2.083	2.052	1.966	1.868	1.784	1.732	1.715	16.631
17.224	2.060	2.027	1.939	1.837	1.751	1.698	1.681	17.857
17.853	2.051	2.018	1.928	1.824	1.737	1.683	1.666	18.489
19.149	2.038	2.003	1.909	1.802	1.712	1.657	1.639	19.789
20.494	2.031	1.994	1.897	1.786	1.693	1.636	1.617	21.140
21.891	2.029	1.990	1.889	1.773	1.677	1.618	1.600	22.542
23.349	2.032	1.992	1.886	1.765	1.666	1.605	1.586	23.996
24.842	2.039	1.997	1.887	1.761	1.658	1.595	1.575	25.564
25.613	2.045	2.001	1.888	1.761	1.655	1.591	1.571	26.278
27.199	2.058	2.013	1.895	1.762	1.652	1.586	1.565	27.870
28.842	2.076	2.028	1.905	1.766	1.652	1.584	1.562	29.520
39.547	2.096	2.846	1.918	1.773	1.654	1.584	1.562	31.230
32.315	2.119	2.067	1.933	1.782	1.659	1.586	1.563	33.005
34.150	2.145	2.091	1.951	1.794	1.666	1.591	1.567	34848
35.094	2.159	2.103	1.961	1.801	1.671	1.594	1.570	35.795
37.037	2.188	2.130	1.982	1.815	1.680	1.601	1.576	3.7746
39.058	2.218	2.158	2.005	1.832	1.692	1.610	1.584	

## NSHC/HOL/TR 75-45

MAI	CK NO =	10.00	CONE	ANGLE	=	5.00	ANGLE	E OF	A I	TACK =	1.00
		p /	p FRE	F-STR	FAM	AT	PLANE	ANGL	LES		
L/RN	0.	30.		ğ.	9(		120.	156		180.	SZEN
41.160	2.250	2.187	2.0	20	1.84	49	1.705	1.6	20	1.594	41.885
43.349	2.282	2.217	2.0		1.8		1.719	1.6		1.605	44.782
45.629	2.314	2.248	2.0	_	1.8		1.734	1.5		1.617	46.371
46.805	2.330	2.263	2.0		1.8		1.742	1.6		1.624	47.551
49.232	2.361	2.293	2.1		1.9		1.739	1.6		1.637	49.988
51.763	2.392	2-323	2.1		1.9		1.776	1.6		1.652	52.528
54.404	2.422	2.352	2.1		1.9		1.793	1.6	96	1.667	
57.157	2.451	2.379	2.1		1.9		1.810	1.7		1.682	57.943
60.030	2.478	2-405	2.2		2.0		1.827	1.7	26	1.697	
61.512	2.491	2.418	2.2		2.0	13	1.835	1.7	34	1.704	62.314
64.569	2.515	2.442	2.2		2.0	33	1.852	1.7	49	1.719	65.383
67.756	2.538	2.464	2.2		2.0		1.868	1.7	64	1.734	68.582
71.073	2.559	2.485	2.2		2.0		1.884	1.7	78	1.748	71.911
74.467	2.578	2.504	2.3		2.0	86	1.898	1.7	91	1.761	75.318
77.920	2.596	2-522	2.3		2.1	02	1.912	1.8		1:.774	78.785
79.668	2.604	2.530	2.3	38	2.1	09	1.918	1.8		1.779	80.540
83.208	2.620	2.545		53	2.1	23	1.930	1.8		1= <b>,7</b> 90	84.293
86.804	2.633	2.559	2.3	67	2.1	-	1.941	1.8		1-800	87.763
90.456	2.646	2.571		79	2.1		1.952	1.8		1.809	
94.164	2.658	2.533	2.3	90	2.1		1.962	1.8		1-817	
97.926	2.668				2.1		1.97-0	1.8		1-825	
99.828	2.673	2.598			2.1		1.975	1.8			100.777
103.673	2.682				2.1		1,983	1.8			104.637
107.575	2.691				2.1		1.990	1.8			168.553
111.533	2.698				2.1		1.997	1 - 8			112.526 116.558
115. <b>5</b> 50	2.705				2.2		2.003	1.8			120.552
119.628	2.712				2.2		2.009	1.8			122.724
121.692	2.715			47	2.2		2.012	1.8 1.8			126.918
125.870	2.720			+53	2.2		2.017	1.0			131.185
130.121	2.725			•58		23	2.022		995		135.531
134.450	2.730			463	2.2		2.927 2.931		309	-	139.963
138.865	2.734			+68	2.2		2.035		313		144.487
143.372	2.738			472		239			314		146.785
145.662				474	2.2		2.041		318		151.461
150.320	2.742			478		247	2.044		921		156.246
155.087	2.745			481	2.2		2.048		924		161.148
159.970	2746			485 488		253	2.051		926		166.172
164.975	2.748			490		256	2.054		929		171.324
170.107	2.749 2.749			492		258	2.055		930		173.950
172.723	2.749	-		494		261	2.058		933		179.305
178.057 183.532	2.749			496		263	2.061		935		184.800
189.151	2.749			498		265	2.063		937	1.899	190.441
194.921				499		267	2.065		940	1.901	196.232
201.844				500		269	2.067		942	1.903	202.179

#### NSHC/HOL/TR 75-45

ANGLE OF ATTACK = MACH NO = 15.00 CONE ANGLE = 5.03 P / P FREE-STREAM AT PLANE ANGLES L/RN S/RN 30. 60. 90. 120. 150. 180. .913 1€.209 16.054 15.638 15.087 14.548 14.163 14.025 1.484 15.099 14.033 1.023 15.656 15.505 14.559 13.659 1.594 13.524 15.368 1.091 15.514 14.975 14.451 13.942 13.578 13.447 1.663 14.840 1.261 14.703 14.334 13.843 13.369 13.031 12.909 1.833 1.454 14.090 13.962 13.617 13.158 12.715 12.400 12.286 2.227 1.795 12.859 12.745 12.441 12.036 11.648 11.374 11.274 2.369 2.063 11.989 11.884 11.606 11.239 10.887 10.640 10.550 2.638 2.371 11.092 10.999 10.749 10.422 9.893 9.815 26948 10.110 9.136 2.724 10.208 10.125 9.898 9.604 9.327 9.068 3.301 9.376 9.301 3.115 9.094 8.828 8.580 8.410 8.350 3.594 3.778 8.236 8.171 7.990 7.762 7.552 7.410 7.361 4.359 4.273 7.557 7.498 7.330 7.122 6.932 6.805 4.857 6.762 4.813 €.951 €.894 6.737 6.542 6.368 6.253 6.214 5.398 5.722 5.397 6.414 6.368 6.210 6.026 5.863 5.757 5.985 6.028 5.943 5.891 5.746 5.571 5.416 5.316 5.283 6.518 7.059 5.348 5-298 5.158 4.991 4.844 4.750 4.720 7.653 7.893 5.016 4.967 4.829 4.664 4.521 4.430 4.401 8.460 8.593 4.729 4.680 4.543 4.239 4.380 4.150 4.121 9.193 9.427 4.480 4.431 4.294 4.133 3.993 3.905 3.876 10.030 19.760 4.167 4.118 3.980 3.820 3.593 3.565 3.681 11.368 3.417 11.702 3.993 3.943 3.805 3.644 3.505 3.389 12.314 13.391 12.686 3.842 3.791 3.652 3.489 3.350 3.262 3.234 13.710 3.712 3.660 3.518 3.354 3.214 3.698 14.330 3.126 14.774 3.599 3.546 3.402 3.236 3.094 3.006 2.977 15.397 3.459 3.255 2.940 16.442 3-494 3.084 2.851 2.822 17.072 17.600 3.382 3.326 3.173 2.999 2.853 2.762 2.733 18.234 18.794 3.259 2.924 3.318 3.103 2.775 2.683 2.654 19.433 3.264 3-203 3.042 2.859 2.707 2.613 2.584 20.024 20.668 21.288 2.990 2.547 2.552 3.220 3.157 2.803 2.521 21.937 23.247 3.170 3.103 2.928 2.732 2.570 2.472 2.441 23.903 24.594 3.147 3.077 2.896 2.693 2.527 2.427 2.395 25.255 25.972 3.131 3.058 2.870 2,661 2.490 2.387 2.354 26.639 27.382 3-046 2.851 2.458 28.354 3.122 2.634 2.352 2.319 29.555 2.832 3.120 3.039 2.602 2.418 2.308 2.274 30.235 31.041 3.126 3.041 2.825 2.587 2.397 2.284 2.249 31.727 32.558 2.263 3.137 3.048 2-823 2.576 2.379 2.227 33.249 2.246 34.194 3.154 3.060 2.826 2.569 2.366 2.209 34.801 35.680 3.175 3.077 2.833 2.566 2.355 2.232 2.194 36.383 38.100 3.216 3.111 2.851 2.567 2.345 2.216 2.176 38.812 39.750 3-139 3.248 2:867 2.572 2.341 2.209 2.168 40.469 41.432 2.162 42.157 3.285 3.170 2.887 2.579 2.341 2.204 3.325 2.910 43.143 3: 205 2.590 2.342 2.201 2.158 43.875 44.886 3,369 3--244 2.936 2.346 2.201 2.156 2.603 45.625 47.560 3.440 2.981 2.356 2.203 2.157 48.309 3.307 2.627 2.646 49.384 3.491 3.353 3.014 2.365 2.208 2.159

<b>MAC</b>	H NO =	15.00	CONE A	NGLE =	5.00	ANGLE	0F	ATTAC	K =	1.00
		<b>5</b> 4	0 EDEC	CTDE A1	1 AT	PLANE	ANGL	FS		
	_			-STREAM	30.	120.	150		180.	SYRN
L/PN	0 •	30.	60	•	• 0	120.	270	•	2000	
	- C. I.	3.400	3.04	Q 2.1	567	2.376	2.21	13 2	.164	52.003
51.240	3.544	3.450	3.08		590		2.22	_	.170	53.991
53.130	3.599 3.685	3.528	3.14	-	727		2.23		.182	56.812
56.931	3.742	3.581	3.18		754	2.427	2.24		.191	58.797
59.008	3.801	3.635	3.22		782	2.444	2.2		.202	60.319
60.022 62.072	3.859	3.689	3.27		812	2.463	2.2		2.214	62.876
64.158	3.917	3.743	3.31	- <del>-</del>	842	2.482	2.2	-	2.227	
67.357	4.002	3.823	3.38		889	2.513	2.3		2.249	68.181
69.535	4.057	3.875	3.42		921	2.535	2.3		2.264	70,368
71.750	4.111	3.926	3.46		953	2.557	2.3		2.280	72.592
74.002	4.163	3.976	3.5		985	2.580	2.3		2.297	
76.290	4.213	4.024	3.59		017	2.602	2.3		2.314	77.148
79.788	4.285	4.093	3.6		065	2.637	2.4		2.341	
82.164	4.330	4.137	3.6		096	2.660	2.4		2.359	
84.575	4.373	4.179	3.6		127	2.683	2.4		2.377	
87.020	4.414	4.219			157	2.706	2.4		2.395	
90.751	4.471	4.275			201	2.739	2.4		2.423	
93.280	4.507		3.8		230	2.761	2.5		2.458	
95.844	4.541				257	2.782	2.5		2.476	
98.442	4.573				283	2.803	2.5	• -		102.329
101.075	4.603			-	309	2.824 2.854	2.5			106.969
105.101	4.644				346	2.873	2.6			108.817
107.838	4.670				369 392	2.892	2.6	•		111.613
119.623	4.694			-	413	2.910	2.6			114.465
113.464	4.716				434	2.928	2.6			117,378
116.366	4.737				464	2.954	2.5	71	2.602	121.882
123.853 123.945	4.780				484	2.970	2.6	85	2.616	124.385
127.126	4.794				502	2.987	2.6	99		128.179
130.496	4.806				520	3.003	2.7			131.472
135.528	4.817				546	3.026	2.7			136.613
133.089	4.820				562	3.041				140.187
142.775	4.820			86 3	.578	3.056				143.887
146.594	4.816			199 3	593	3.07:0		769		147.721
150.533	4.809		4.2		608	3.084		781		151.675
156.588	4.797		2 4.2		628	3.103				157.754
169.728	4.790	4.645			.640	3.116		807		161.910
164.955	4.783			-	•652	3.127		818		166.152
169.271	4 . 7-7-8	4 - 632			.662	3.139		327 976		170.485 174.912
173.682	4.774			-	.672	3.149		836 asa	2.770	
189.488	4.769				.685	3.164		850 858		186.414
185.140	4.767				•692	3.174		866		191.199
189.906	4,76				.699	3.183 3.191		873		19693
194.782	4.763				•704 •710	3.203		884	2.800	203.649
202.309	4.75	3 4.61	ÿ <del>**</del> • 6	216 3	I L U	<b>↓ ↓ L</b> :0 0	~ 4	,		

MACH NO = 20.90 CONF ANGLE = 5.09 ANGLE OF ATTACK = 1.00

		P /	P FREE-S	TREAM A	T PLANE	ANGLES		
L/RN	0.	30.	60.	90 •	120.	150.	186.	SZRN
	• •		334	200	200	2000		
.913	28.406	28.134	27.431	26.430	25.482	24.804	24.560	1.484
1.022	27.416	27.151	26.436	25.485	24.562	23.903	23.666	1.593
1.160	26.587	26.340	25.673	24.784	23.922	23.309	23.087	1.741
1.351	25.281	25.047	24.420	23.585	22.778	22.205	21.998	1.923
1.668	23.149	22.941	22.384	21.643	20.931	23.426	20.243	2.242
2.055	20.838	21.655	20.171	19.529	18.915	18.484	18.327	2.530
2.367	19.237	19.075	18.641	18.070	17.527	17.149	17.013	2.933
2.901	16.918	16.780	16.405	15.919	15.465	15.152	15.041	3.479
3.527	14.815	14.698	14.373	13.959	13.575	13.314	13.223	4.137
3.995	13.548	13.441	13.143	1.2.770	12.427	12.137	12.118	4.578
4.778	11.876	11.780	11.512	11.181	10.885	10.689	10.623	5.364
5.660	10.479	19.390	10.142	9.839	9.572	9.399	9.342	6.249
6.304	9.689	9.603	9.363	9.074	8.820	8.657	8.634	6.895
7.352	8.687	8.604	8.373	8.098	7.858	7.705	7.655	7.347
8.499	7.874	7.792	7.566	7.299	7.067	6.920	6.873	9.998
9.317	7.418	7.337	7.113	6.849	6.621	6.476	6.430	9.919
10.621	6.842	6.761	6.538	6.276	6.051	5.989	5.864	11.229
12.016	6.371	6.290	6.066	5.805	5.581	5.441	5.395	12.629
12.994	6.196	6.024	5.798	5.537	5.313	5.173	5.128	13.510
14.529	5.769	5.684	5.455	5.192	4.957	4.827	4.782	15.152
15.143	5.492	5.405	5.171	4.903	4.677	4.536	4.491	16.772
17.260	5.336	5.248	5.010	4.738	4.509	4.368	4.322	17.893
18.936	5.140	5.048	4.802	4.524	4.291	4.147	4.161	19.636
20.131	5.030	4.935	4.684	4.408	4.164	4.019	3.973	20.835
22.936	4.894	4.795	4.534	4.248	3.998	3.850	3.803	22.687
23.942	4.787	4.683	4.411	4.136	3.857	3.706	3.659	24.531
25.245	4.731	4.623	4.342	4.630	3.776	3.622	3.574	25.908
27.243	4.665	4.551	4.257	3.932	3.669	3.511	3.461	27.914
29.292	4.621	4.500	4.191	3.851	3.578	3,416	3.365	29.971
39.684	4.603	4.477	4.157	3.806	3.526	3.361	3.309	31.768
32.868	4.590	4.456	4.118	3.750	3.459	3.289	3.235	33.503
34.973	4.594	4.451	4.093	3.797	3.404	3.227	3.172	35.674
36.438	4.605	4.456	4.085	3.684	3.372	3.192	3.136	37.144
38.665	4.635	4.475	4.082	3.659	3.333	3.146	3.088	39.380
43.924	4.680	4.509	4.890	3.644	3.303	3.109	3.049	41.648
42.448	4.717	4:•538	4.102	3.639	3.287	3.088	3.026	43.177
44.758	4,783	4.592	4.129	3.639	3.269	3.052	2.998	45.496
47.095	4.861	4.657	4.164	3.646	3.258	3.042	2.976	47.842
48.667	4.920	4.736	4.193	3.655	3.254	3.032	2.965	49.429
51.846	5.016	4.788	4.244	3.674	3.253	3.022	2.952	51.908
53.448	5.121	4.879	4.302	3.700	3.257	3.016	2.943	54.219
55.052	5.196	4.944	4.345	3.720	3.262	3.014	2.940	55.939
57.591	5.315	5.048	4.415	3.755	3.274	3.016	2.938	58.288
59.961	5.439	5.157	4.490	3.794	3.290	3.021	2.940	60.757
61.612	5.525	5 - 233	4.544	3.823	3.303	3.026	2.944	62.414

MA	CH NO =	20.00	CONE ANG	LE = 5.	00 ANGL	E OF ATT	ACK =	1.00
		5 4 9	P FREE-S	TOTAM A	T PLANE	ANGLES		
1.705	0	30•	60.	90.	120.	150.	180.	SZRN
L/RN	0 •	30 •	50.	,,,,	1234			
64.105	5.657	5.351	4.627	3.879	3.325	3.037	2.952	64.917
65.778	5.747	5.432	4.686	3.904	3.342	3.046	2.958	66.596
68.333	5.883	5.554	4.776	3.957	3.369	3.061	2.971	69.131
70.845	6.019	5.678	4.868	4.013	3.399	3.879	2.986	71.583
72.549	6.110	5.761	4.931	4.051	3.421	3.093	2.997	73.794
75.119	€.245	5.885	5.026	4.111	3.454	3.114	3.016	75.973
77.764	6.377	6.008	5.122	4.172	3.490	3.138	3.037	78.568
79.436	6.464	6.088	5.186	4.214	3.514	3.155	3.052	80.366
82.044	€.590	6.267	5.282	4.278	3.552	3.181	3.075	82.925
84.666	€.713		5.377	4.342	3.591	3.208	3.100	85.557
R6.421	€.792	6.398	5.439	4.385	3.618	3.227	3.117	87.318
89.064	6.906	6.506	5.531	4.449	3.658	3.256	3.144	89.971 92.637
91.720	7.014		5.620	4.513	3.699	3.286	3.172	
93.498	7.984		5.679	4.556	3.727	3.306	3.191 3.220	
96.179	7.183	_	5.764	4.619	3.768	3 • 3 3 7 2     2 6 9	3.249	-
98.879	7.276		5.847	4.682	3.809 3.837	3.368 3.389		101.544
100.692	7.335		5.900	4.723	3.879	3.421		104.397
103.434	7.417		5.978	4.784 4.845	3.920	3.453		107.184
106.211	7.494		6.053	4.884	3.948	3.474		109.:65
199.885	7.542		6.101 6.172	4.942	3.989	3.506		111.929
110.938	7.607		6.239	5.000	4.031	3.538		114.852
113.850			6.282	5.038	4.058	3.560		116.838
115.829	7.745		6.345			3.592		119.884
118.862 123.933			6.385	5.130	4.127	3.614		121.962
124.120			6.443	5.184	4.169	3.647		125.161
127.413			6.497	5.237		3.680	3.554	128.467
129.673			6.531	5.272		3.702		130.736
133.169			6.579			3.734	3.610	134.245
136.801			6.621	5.372		3.767	3.643	137.390
139.299			6.647	5.404	4.346	3.789		140.399
143.175			6.679	5.450	4.387	3.821		144.289
147.215			6.794	5.495		3.853		148.344
150.007			6.746	5.523	4.453	3.874		151.147
154.357			6.725	5.564		3.986	3.783	155.514
158-915			6.723	5.602		3.937		160.789
152-079			6.71 <del>7</del>	5.625		3.958		163.266
167.021		7.357	6.702	5.658		3.988	3.866	
172.134	7.590	7.337	6.682	5.685		4.018	5.045 7.043	173.359 176.807
175.569			6.668	5.701		4.036		182.118
183.760			6.649			4.063 4.088	3.73/ 3.064	187.281
186.003			6.631	5.732		4.400		190.819
189.528			6.621			4.126		196.176
194.865			6.608	5.740 5.738		4.148	4.015	201.597
201.264	7.531	7 • 272	6.597	9.130	70117	7 6 6 7 9		

MACH NO = 25.00 CONE ANGLE = 5.00 ANGLE OF ATTACK = 1.00 P / P FREE-STREAM AT PLANE ANGLES L/RN ð . 30. 60. 90. 120. 150. 180. S/RN 44.099 43.674 42.529 41.006 39.532 38.484 .913 38.107 1.484 40.644 1.089 42.121 41.721 39.210 37.819 36.829 36.471 1.568 37.495 34,950 1.256 40.217 39.842 38.835 36.201 35.282 1.828 1.553 3E.990 36.653 35.751 34.552 33.396 32.577 32.279 2.126 72.362 29.609 29.352 2.489 1.914 33.446 33.149 31.317 30.316 29.710 29.461 28.788 27.906 27.067 26.481 26.270 2.936 2.359 23.191 25.298 2.895 26.090 25.878 24.551 23.849 23.364 3.473 4. 98 3.518 22.810 22.629 22.128 21.491 20.900 20.498 20.357 17.933 4.316 19.910 19.753 19.314 18.765 18.267 17.820 4.233 17.298 16.899 15.974 15.689 15.593 5.53v 5.044 17.440 16.410 5.953 15.386 15.253 14.882 14.433 14.038 13.783 13.699 6.543 5.960 13.701 13,574 13.220 12.797 12.428 12.193 12.117 7.554 12.204 10.806 8.065 12.327 11.860 11.454 11.102 10.878 8.663 10.750 3.265 11.208 11.087 19.353 10.011 9.735 9.725 9.568 9.113 13.556 10.295 10.174 9.840 9.449 8.901 8.833 11.164 12.547 11.934 8.160 8.093 9.545 9.424 9.090 8.792 8.370 13.395 8.928 8.805 8.473 8.081 7.750 7.543 7.476 14.214 15.558 14.934 8.418 8.293 7.953 7.562 7,231 7.024 6.957 7.873 7.743 7.394 6.997 6.662 6.454 6.388 17.732 17.100 7.546 7.054 18.803 7.412 6.648 6.309 6.100 6.033 19.442 27.568 7.27-7 7.137 6.769 6.353 6.008 5.737 5.730 21.214 5.751 5.537 23.744 6.911 6.530 5.103 5.468 22.391 7.856 6.878 6.726 6.330 5.890 5.529 5.312 5.242 24.928 24.258 6.577 6.165 5.709 5.339 5.117 5.047 26.863 26.193 E.736 5.175 29.162 6.626 E.458 6.029 5.556 4.948 4.877 28.837 €.544 6.368 5.918 5.426 5.034 4.802 4.729 30.854 39.171 32.215 6.489 6.302 5.830 5.318 4.913 4.675 4.600 32.906 34.989 €.457 F. 259 4.809 4.565 4.488 34.291 5.763 5.228 37.199 6.449 35.393 6.238 5.715 5.155 4.720 4.469 4.390 4.386 4.366 39.232 38.518 6.461 €.236 5.684 5.097 4.645 €.253 4.582 4.315 4.232 6.493 5.669 5.052 41.385 41.663 4.254 43.554 42.823 E.544 6.288 5.669 5.019 4.529 4.169 44.996 6.613 €.340 5.683 4.999 4.487 4.202 4.115 45.735 47.179 6.699 6.407 5.711 4.988 4.454 4.159 4.068 47.926 49.369 6.488 4.988 4.429 4.123 4.030 50.125 6.800 5.750 6.915 5.800 51.565 6.583 4.996 4.411 4.094 3.998 52.329 54.496 6.729 5.883 4.399 4.065 3.965 55.272 7.090 5.020 56.696 7.235 6.851 5.956 5.046 4.396 4.050 3.946 57.480 4.040 58.896 7.391 €.984 6.038 5.079 4.399 3.933 59.588 7.557 4.408 4.034 3.924 61.895 51.094 7.126 6.128 5.119 7.730 7.276 6.225 4.420 4.033 3.919 64.398 63.289 5.164 7.911 7.433 6.328 5.214 4.438 4.035 3.918 66.298 65.481 67.669 8.098 7.596 6.437 5.259 4.458 4.042 3.920 68,494 7.764 6.552 69.851 8.289 5.328 4.483 4.051 3.925 70.685 72.028 8.483 7.936 6-570 5.391 4.510 4.063 3.934 72.871

MAC	H NO = 2	5.00 CO	NE ANGLE	= 5.00	ANGLE	CF ATT	CK = 1	.0.
					OL AND	ANGLES		
			FPEF-ST		PLANE	150.	180.	SZRN
L/QN	9.	30.	60•	90•	120•	150.	1004	
		0 440	6 702	5.457	4.541	4.078	3.945	75.350
74.199	8.680	8.110	6.792 6.917	5.526	4.574	4.095	3.958	77.223
76.364	e.877	8.287	7.945	5.598	4.609	4.115	3.974	79.389
78.522	9.874	8.464	7.174	5.672	4.646	4.136	3.992	81.548
81.672	9.278	8.641	7.305	5.749	4.685	4.160	4.011	83.700
82.815	9.463	8.817	7.436	5.826	4.726	4.184	4.033	85.945
84.953	9.653	8.991	7.567	5.906	4.768	4.211	4.056	87.983
87.083	9.839	9.163	7.698	5.986	4.812	4.239	4.080	90.115
89.207	10.020	9.332	7.828	6.067	4.857	4.267	4.105	92.242
91.326	10.196	9.497	8.009	6.177	4.918	4.308	4.141	95.173
94.146	10.421	9.713	8.127	6.250	4.964	4.339	4.169	97.195
96.260	10.582	9.865	8.253	6.343	5.012	4.371	4.198	99.318
99.375	10.736	10.614	8.376	6.426	5.060	4.484		101.446
100.495	16.852	10.158	8.497	6.509	5.109	4.438	4.260	103.583
102.624	11.010	10.297	8.617	6.593	5.159	4.472	4.292	105.732
194.764	11.148	10.429	8.733	6.676	5.209	4.508	4.324	157.398
105.922	11.268	10.554	8.848	6.763	5.260	4.544	4.358	110.386
109.102	11.377	10.673	8.963	6.844	5.312	4.580	4.393	112.302
111.319	11.476	13.7R-4		6.928	5.364	4.618	4.429	114.551
113.55C	11.562	10.886	9.063	7.011	5.417	4.656	4.465	116.337
115.828	11.635	10.980	9.175	7.095	5.471	4.696		119.169
119.150	11.693	11.063	9.278	7.179	5.526	4.735	4.541	121.553
120.522	11.736	11.135	9.377	7.263	5.582	4.776	4.581	123.987
122.950	11.762	11.194	9.472	7.346	5:•638	4.818	4.622	126.487
125.440	11-771	11.238	9.563	7.429	5.695	4.850	4:.663	129. 755
127.998	11.763	11.268	9.648	7.511	5.753	4,903	4.786	131.593
130.626	11.741	11.281	9.726	7.593	5.811	4.947	4.749	134.404
133.327	11.706	11.279	9.797	7.699	5.890	5.006	4.809	138.145
137.055	11.645	11.254	9.879	7.777	5.950	5.052		141.757
139.955	11.592	11.229	9.928	7.853	6.011	5.097		144.:67
142.954	11.537	11.177	9.965 9.990	7.927	6.071	5-144	4.948	147.18.6
146.063	11.482	11.128		7.998	6.132	5.131	4.995	150.429
149.283	11.428	11.076	18.001	8.066	6.193	5.237	5.044	153.761
152.611	11.376	11.024	9.999 9.984	8.12°	6.254	5.285	5-092	157.215
156.051	11.327	13.973	9.959	8.188	6.314	5.332		160.791
159.614	11.282	10.924	9.925	8.241	6.374	5.379	5.189	164.502
163.311	11.240	10.877		8.287	6.433	5.426		168.360
167-155	11.202	10.835	9.886	8.325	6.491	5,473		172.779
171.158	11.168	19.795	9.844	8.355	6.547	5.519	5.333	176.491
175.254	11-138	10.763	9.803	8.375	6.600	5.562	5.376	180.511
179.349	11.114	10.739	9.765	8.386	6.650	5.604	5-418	184.711
183.443	11.795	17.766	9.730	8.388	6.696	5.643	5.457	188.323
187.539	11.078	10.684	9.693	8.384	6.738	5.681	5.493	3 192.939
191.639	11.064		9.679	8.374	6.776	5.717	5.527	197.161
195.746	11.053		9.644	8.356	6.823	5.762	5.570	202.573
201.237	11.942	10.636	9.615	0.000	0.00	, , , , ,	- <del></del>	

#### NSHC/ADL/TR 75-45

MACH MO = 35.06

CONT ANGLE = ANGLE OF ATTACK = 5.03 E / O FEE-SISEAM ΛT PLANE ANGLES FISH 0. 30. 50. 90. 123. 153. 51PN 180. .913 63.253 52.652 51.011 58.830 56.723 55.224 54.678 1.494 FB. 413 1.089 ५०.-४४० 58.294 56.235 54.241 52.818 52.303 1.661 1.255 F7. 665 57.127 55.582 53.761 51.902 50.581 50.103 1.827 1.654 51.347 50.884 49.646 +7.999 46.412 45.238 44.881 2.238 2.050 46.129 45.723 44.647 43.223 41.859 49.991 45.553 2.525 2.526 40.732 45.394 **ፕ**ፍ. 483 38.284 37.154 36.369 36.587 3.1.3 3.295 34.103 33.830 33.678 32.115 31.219 39.635 30.390 3.475 7.977 29.775 29.501 28.849 28.028 27.278 26.772 26.598 4. 559 4.753 25.968 25.759 25.175 24.454 23.808 23,382 23.239 5.339 5,979 21.887 21.699 71.172 2 .535 19.974 19.512 19.494 6. = 29 6.942 19.453 19.273 18.174 18.772 17.653 17.319 17.212 7.536 8.429 16.890 16.717 16.235 15.658 15.177 14.865 14.766 9.:29 3.652 15.774 15.205 14.732 14.178 13.700 13.398 13.301 10.257 17.966 14.175 13.965 13.495 12.950 12.480 11.575 12.184 12.089 12.846 12.813 12.642 12.174 11.631 11.168 10.877 10.784 13.452 14.747 12.920 11.946 11.374 10.839 10.368 16.379 9.987 14.969 15,921 11.350 11.183 10.705 10.157 9.694 9.405 9.313 16.549 18.125 10.650 13.467 C. 975 9.417 8.949 8.663 8.568 18.761 19.853 10.221 10.031 9.527 8. 953 8.485 8.194 8.101 20.493 9.751 22.238 9.561 9.037 8.449 7.965 7.671 7.577 22.490 24.097 C. 48% 9.278 P.735 8.132 7.638 7.339 7.244 24.746 25.982 9.260 9.543 8.481 7.859 7.354 7.051 6.955 26.548 23.570 9. 29 8.797 8.235 7.555 7.834 6.723 6.625 29.246 33.551 8.000 9.656 8.039 7.365 6.830 6.513 6.413 31.235 ₹7.552 8.995 8.549 7.903 7.204 6.652 6.329 6.227 33.253 35.295 8.729 8.452 7.764 7.026 6.451 6.118 6.014 35.782 37.341 8.786 8.412 7.689 6.918 6.324 5.932 5.876 38.350 49.110 8.718 8.399 7.622 6.804 6.131 5.827 5.717 49.931 42.199 8.757 8.417 7.597 6.738 6.092 5.728 5.615 42.928 44.294 8.820 9.458 7.593 6.689 E. 016 5.641 5.526 45.133 47.290 8.930 8.544 7.608 6.644 5.935 5.544 5.425 -47.937 49.187 9.152 9.632 7.642 6.626 5.887 5.483 5.368 49.942 51.270 9.185 ₽.7<u>-</u>77 7.687 6.619 5.848 5.431 5.305 52.742 54.05-0 9.791 8.904 7.779 6.627 5.812 5-375 5.244 54.934 56.136 9.565 9.047 7.848 6.645 5.793 5.341 5.266 56.918 59.233 9.754 9.203 7.936 6.671 5.783 5.315 5.176 58.992 62.949 10.027 9,433 8.671 6.718 5.778 5.238 5.144 61.740 62.970 10.246 C. 618 8.183 6.762 5.782 5.275 5.126 63.787 55.677 10.556 9.881 8.345 6.831 5.796 5.265 5.110 66.495 57.684 18.799 13.639 8.476 5.811 6.889 5.263 5.103 68.509 59.678 11.349 10.354 A.614 5.831 6.953 5.264 5.100 70.509 72.300 11.394 10.502 8.807 7.046 5.864 5.272 5.102 73.152 74.266 11.558 10.832 8.959 7.120 5.892 5.281 5.107 75.116 76.237 11.926 11.066 9.114 5.924 7.198 5.294 5.114 77. 65 79.772 12.286 11.382 9.328 7.308 5.971 5.314 5.129 79.546

#### UNGLASSIFIED NSWC/WOL/TP 75-45

5.03

CONF ANGLE =

"ACH "B = 38.80

ANGLE OF ATTACK = 1.0: b \ b EbEd-slowdh AT FLANE ANGLES LYTK ٤. 63. 95. 2/3N 123. 150. 183. 97.672 11.622 0.493 7.394 12.557 6.009 5.333 5.143 81.552 37.195 12.318 11.943 G.716 7.513 6.063 5.350 5.154 84.181 95.066 12.194 9.836 7.6'5 85.358 17,186 5.384 5.183 6.136 95.023 17.451 7.699 12.424 10.059 87.923 6.150 5.438 5.223 १०, रम् 13,790 12.741 19,283 7.829 5.444 5.233 90.289 6.213 91.233 14.754 12.975 10,461 7.926 5.472 5.257 92.125 6.261 93.35 กร.ถูวูล 14,332 13.216 8.025 11.635 5.532 6.311 5.282 35.441 14.523 13.5.7 8.150 10.866 6.379 5.544 5.318 96.372 97.242 11.033 14.854 13.727 8.263 6.432 5.576 5.347 98,181 99.670 8.401 15.149 14.013 11.267 6.533 5.521 5.396 100.787 15.758 11.439 P.516 191.437 1-.219 6.558 5.656 5.418 182.391 133.236 15.556 14.417 11.6.7 8.611 6.615 5.692 5.450 114.198 15.852 6.691 125.544 14.674 11.830 8.754 5.742 5.495 106.615 127.451 15.973 14.855 11.996 3.852 6.750 5.781 5.539 108,439 119,291 15.027 8. 971 16.124 12.163 5.81C 5.820 5.566 110.376 111.757 19.240 12.374 15.305 9.118 6.891 5.875 5.616 112.751 113.631 15.413 15.306 12.532 9.230 6.954 5.917 5.655 114.632 115.529 16.514 15.519 12.688 9.342 7.018 5.350 5.695 116.537 16.543 15.673 12.889 119.175 9.493 7.135 E.019 5.751 119.123 123.075 16.657 15.769 13.035 9.618 7.172 6.165 5.795 121.1.1 127.762 15.870 16.586 9.752 13.222 7.264 6-129 5.855 123.798 124.825 16.533 7.335 15.923 13.356 9.879 6.178 5.902 125.973 15.056 125.935 16.551 9,996 13.482 7.495 6.228 5.950 127.987 15.058 129.815 1E.635 10.152 7.534 6.017 130.078 13.636 6.297 132.337 16.546 15.955 13.741 11.268 7.579 6.359 6.868 133.114 13.385 134.315 15.925 13.833 16.476 7.656 6.474 6.121 135.785 10.539 137.42R 16.373 15.86 C 13.936 4.479 7.763 6.195 138.520 15.727 179.847 16.295 13.995 13-653 7.840 6.536 6.252 140.748 147.197 15,690 16.158 44.050 10.812 7.948 6.330 144.311 6.614 14.070 145.750 14. 780 15.619 10.911 8.031 6.674 6.391 146.393 15.994 15.536 143.414 14.07-4 11.916 R.114 6.734 6.452 149.548 15.884 152.050 15.424 14.054 11.149 8.225 6.816 6.536 153.198 14.522 154.367 15.806 15.342 11.242 8.310 €.879 6.600 156. 26 157.770 15.732 15.252 13.977 11-.329 8.394 6.942 6.665 158.947 161.787 15.643 15.167 11.434 13.934 7.028 8.508 6.753 162.972 15.089 15.582 154.921 13.840 11.531 8.593 7.592 6.821 166.118 167.264 15.531 15.002 13.753 11-576 8.716 7.183 6.912 170.478 14.944 172.623 15.466 13.631 8.789 7.244 11.617 6.980 173.346 15.427 14.893 176.855 13.614 11.647 8.871 7.319 7.047 177.734 183.739 15. 355 14-835 13.527 11.665 8.976 7.395 7.136 182.,56 184.364 15.351 14.890 13.467 11.657 0.050 7-456 7.199 185.536 187.919 15.342 14-.772 13.414 11.658 9.119 7.515 7.259 189.214 100.646 14.325 14.743 13.353 11.635 9.203 7.590 7.335 193.949 175.194 15.316 14-726 13.33-8 9.260 7.643 7.388 197.531 11,611 223.896 7.455 262.231 15.399 14-759 11-573 7.711 13.261 9.328

МА	CH NO =	3.50	СОИЕ	ANGLE	=	6.00		ANGLE	٥F	ATT	ACK =	1.00
L/RN	û•	P / 30•	P F	EE-STR 60.	EAM 91				ANGL 150		180.	S/PN
.895	1.456	1.444	1.	413	1.3			331	1.30		1. 291	
.948	1.493	1.391	1.	361	1.3			279	1.25		1.240	1.519
1.005	1.442	1.439	1.	398	1.3			315	1.28		1.275	
1.129	1.459	1.457	1.	426	1.3			342	1.31		1-302	
1.271	1.468	1.457			1.3			345	1.31		1.306	
1.349	1.465	1.453			1.3			342	1.31		1.304	
1.518	1.454	1.443			1.3			334	1.30		1.297	
1.709	1.441	1.430			1.3			324	1.29		1.287	
1.923	1.423	1.413			1.3			310	1.28		1.275	
2.339	1.413	1.403			1.3			303	1.27		1.268	
2.289	1.399	1.379				1.7		293	1.2		1.250	
2.556	1.355	1.356						265	1.24		1.234	
2.871	1.343	1.334			1.2			248	1.28		1.219	
3.034	1.332	1.323			1.2			238	1.21		1.211	
3.383	1.311	1.392			1.2			550	1.20		1.194	
3.762	1.293	1.284			1.2			S 0 S	1.18		1-177	
4.175	1.278	1.270		246	1.2			188	1.16		1.163	
4.393	1.272	1.264		240	1.2			182	1.18		11-57	
4.856	1-262	1.253	1.	. 230	1.2			174	1.19		1.149	
5.355	1.254	1.245	1	222	1.1			167	1.19		1.144	
5.890	1,249	1.240		217	1.1			163	1.1		1.140	
6.171	1.247	1.239		215	1.1			161	1.1		1.139	
5.754	1.245	1.237		213	1.1			159	1.14		1.138	
7.396	1.245	1.236		213	1.1			159	1.14		1.138	
8.069	1.246	1.238		214	1.1			161	1.1		1.139	
8.422	1.248	1.239		215	1.1			162	1.1		1-140	
9.168	1.251	1.243		219	1.1			165	1.14		1.144	
9.942	1.255	1.247		223	1.1			169	1.19		1.148	
10.771	1.250	1.251		227	1.1			174	1.45		1.153	
11.204	1.262	1。254		553	1.2			176	1.1		1 -1-55	
12.135	1.268	1.259		235	1.2			181	1.1		1.160	
13.057	1.273	1.264		240	1.2			186	1.1		1166	-
	1.278	1.270		, 245							-	14.704
14.583	1.281	1.272		247	1.2			194	1.1		1.173	_
15.659	1.285	1.277		25?	1.2	23		198	1.1		1.178	-
16.812	1.291	1.282		257	1.2			20.3	1.1		1.483	
18.014	1.296	1.287		. 262	1.2			207	1.1		1.4197	
18.637	1.298	1.289		264	1.2			239	1.1		1.189	
19.931	1.302	1.293		258	1.2			213	1.1		1.193	-
21.290	1.306	1.297		.271	1.2			217	1.2		1.197	
22.715	1.310	1.301		275	1.2			220	1.2		1.200	
23.454	1.311	1.302		. 277	1.2			222	1.2		1.201	
24.984	1.714	1.305		280	1.2			225	1.2		1.204	_
26.537	1.317	1.308		282	1.2			227	1.2		1.207	-
28.255	1.320	1.311	1	. 285	1.2	55	1.	229	1.2	14	1-209	28 • 987

74	4CH NO =	3.50	CONE ANG	LE = 4.	00 ANGL	E OF AT	TACK =	1.00
		5 4		<b></b>				
Γ\₽N	£.		P FREG-S			ANGLES		
	• •	30.	60.	90.	120.	150.	180.	SIPN
29.134	1.321	1.312	1.286	1.256	1.231	4 24 5	4 040	
30.931	1.324	1.314	1.288	1.259	1.231	1.215 1.217	1.210	
32.812		1.316	1.290	1.263	1.234	1.217	1.212	
34.778		1.319	1.292	1.262	1.234	1.220	1.214	
75.795	1.328	1.319	1.293	1.263	1.237	1.221	1.215	
37.896	1.330	1.321	1.295	1.264	1.238	1.222	1.216	
48.692	1.332	1.322	1.296	1.265	1.239	1.223	1.218	
42.385	1.433	1.324	1.297	1.267	1.241	1.224	1.219	
43.570	1.334	1.324	1.298	1.267	1.241	1.225	1.220	
46.017		1.325	1,290	1.259	1.242	1.226	1.221	
48.571	1.336	1.327	1.300	1.279	1.243	1.227	1.222	
51.236	1.337	1.328	1.301	1.270	1.244	1.227	1.223	
52.612	1.378	1.328	1.302	1.271	1.244	1.228	1.223	
55.453	1.338	1.323	1.303	1.272	1.245	1.228	1.223	
58.415	1.339	1.330	1.303	1.27?	1.246	1.229	1.224	
61.504	1.340	1.330	1.304	1.273	1.246	1.230	1.224	
63.098	1.340	1.331		1.273	1.247	1.239	1.225	
66.387	1.341	1.332	-	1.274	1.247	1.239	1 - 225	67.318
69.814 73.387	1.342	1.332		1.275	1.248	1.231	1.226	70.765
75.229	1.342	1.333		1.275	1.248	1.231	1.276	74.357
79.028	1.343	1.333		1.275	1.248	1.231	1.225	76.209
82.987	1.743	1.373		1.276	1.249	1.232	1.226	
87.110	1.344	1.334 1.334	1.307	1.275	1.249	1.232	1.227	-
89.235	1.344	1.334	1.308	1.277	1.249	1.232	1.227	
919.20	1.345	1.335	1.308 1.308	1.277 1.277	1.250	1 - 233	1.227	
98.182	1.345	1.335	1.300	1.277	1.250	1.233	1.227	
102.935	1.345	1.336	1.309	1.278	1.250	1.233	1228	-
105.384	1.345	1.336	1.309	1.278	1.250 1.251	1.233		104.057
110.433	1.346	1.336	1.310	1.278	1.251	1.233 1.234		106.530
115.649	1.346	1.336	1.710	1.278	1.251	1.234		111.607
121.161	1.346	1.337	1.310	1.279	1.251	1.234		116.892
123.931	1.747	1.337	1.310	1.279	1.251	1.234		122.394 125.229
129.792	1.347	1.337	1.310	1.279	1.252	1.234		131.073
135.841	1.347	1.337	1.311	1.279	1.252	1.234		137.155
142.138	1.347	1.338	1.311	1.279	1.252	1.235		143.486
145.382	1.347	1.338	1.311	1.279	1.252	1.235		146.748
152.657	1.348	1.338	1.311	1.280	1.252	1.235		153-471
150.026	1.348	1.738	1.311	1.280	1.252	1.235		160-467
166.268	1.348	1.339	1.311	1.280	1.252	1235		167.750
169.090	1.348	1.338	1.312	1.280	1.252	1.235		171.501
177.689	1.348	1.338	1.312	1.283	1.253	1.235		179.234
185.693	. 1 • 348	1.338	1.312	1.280	1.253	1.235		187.281
104.024	1.348	1.339	1.312	1.280	1.253	1.235	1:230	195-658
252.694	1.348	1.339	1.312	1.280	1.253	1.235	1 -230	204.377

~ A	CH NO =	5.00	CONE	ANGLE	=	6.00		ANGLE	OF	ΔΤΤΔ	ick =	1.99
		P /	b to	EE-STR	FΔM	ΔΤ	PI	ANF	ANGL	FS		
L/QN	ů•	33.		63.	9(			29.	150		189.	ZNöN
୍ଞର୍ଷ	2.418	2.397	2.	341	2.28	55	2.5	L93	2.14	+ C	2.122	1.466
•951	2.317	2.296	2.	241 7	2.1	57	2.1	195	2.04	+ 4	2.025	1.522
1.612	5.360	2.348	2.	292	2.25			L44	2.39	32	2.073	1.583
1.150	2.361	2.341	2.	287	2.21	լդ		L44	5.00		2.076	1.722
1.310	2.319	2.290	2.		2.18			L O O	2.05	52	2.035	1.883
1.490	2.279	2.260			2.1			074	2 • 0 8		2.019	1.974
1.602	2.213	2.195			2.09			17	1.97		1. 956	2.176
1.833	2.138	2.123			2.01			952	1.91		1.895	
2.098	2.956	2.049			1.9			381	1.84		1.827	
2.244	2.012	1.996			1.89			343	1.80		1.792	
2.555	1.925	1.919			1.81			767	1.73		1.720	3.144
2.924	1.842	1.823			1 . 74			593	1.69		1.649	
7.325	1.755	1.752			1.69			522	1.59		1.581	3.909
₹.542	1.730	1.717			1.6			590	1.55		1.549	4.127
4.008	1.555	1.652			1.5			529	1.50		1.471	4.596
4.520	1.509	1.595			1.5			+76	1.44		1.439	5.111
F. 578	1.562	1.549			1.4			431	1.4		1.395	5.671
5.374	1.542	1.529			1.4			411	1.38		1.375	5.970
6.003	1.508	1.495			1.4			377	1.39		1.342	6.F02
5.681	1.493	1.470			1.3			350	1.32		1.315	7.28-3
7 4 9 8	1.454	1.451			1 - 39			329	1.30		1.294	8 • 01-4
7.790	1.457	1.444			1.3			321	1.29		1.286	8.399 9.205
8.592	1.447	1.433			1. 34			308	1.25		1.273	10.064
9.445	1.442 1.441	1.428			1 • 3 ! 1 • 3 :			390 296	1.27		1.265	10.054
10.824	1.441.	1.427 1.427			1 • 3			296 296	1.28		1.259	11.449
11.879	1.446	1.431			1.31			296	1.26		1.259	_
12.848	1.452	1.437			1. 34			299	1.27		1.251	13.484
13.941	1.452	1.445			134			304	1.27		1.255	_
14.509	1.466	1.453			1.3			307	1.27		1.268	_
15.687	1.476	1.453			1.39			314	129		1.274	
15.922	1.487	1.470			1.39			321	1.29		1.281	17.581
18.216		1.482			1 . 3				1.29		1.289	-
18.885	1.505	1.497			1.3			334	1.30		1.294	19.554
20.258	1.517	1.499			1.39			343	1.31		1.392	20.945
21.712	1.528	1.510			1.4			352	1.32		1.311	22.398
23.219	1.539	1.521			1.4			361	1.32		1.319	23.913
23.996	1.544	1.526			1.4			365	1.33		1.323	24.694
25.600	1.554	1.536			1 . 4			373	1.34		1.331	26.306
27.269	1.564	1.545			1.4			381	1.34		1.339	
29.005	1.572	1.553			1.4			388	135		1.346	29.730
29.890	1.576	1.557			1.4			392	1.35		1.349	30.629
31.739	1.584	1.565			1.4			398	1.436		1.355	32.480
33.651	1.591	1.571	The state of the s		1.49			404	1.37		1.361	34.402
75.635	1.597	1.578	1.	525	1 - 4	53	1.	410	1.37	76	1.356	36.397

МДС	CH かり =	5.33	CONE ANGL	⊑ = ୫•(	י אהר?	E OF AT	TACK =	1.09
			o Esēi÷21			ANGLES		
Γ\5∦	٠.	₹3•	50•	97.	120•	150•	180.	CNDN
36.655	1.500	1.581	1.528	1.455	1.412	1.379	1.369	37.423
38.753	1.606	1.585	1.577	1.471	1.417	1.304	1.373	39.532
49.927	1.511	1.591	1.53ª	1.475	1.421	1.398	1.377	41.719
43.181	1.515	1.595	1.542	1.479	1.425	1.391	1.381	43.985
44.730	1.517	1.597	1.544	1.491	1.427	1.393	1.383	45.149
46.715	1.521	1.631	1.548	1.485	1.430	1.395	1.386	47.579
49.177	1.625	1.605	1.552	1.488	1.433	1.390	1.389	50.013
51.724	1.528	1.579	1.555	1.491	1.436	1.402	1.391	52.575
53.031	1.627	1.639	1.555	1.492	1.437	1.403	1.393	53.889
55.713	1.632	1.512	1.559	1.495	1.440	1.405	1.395	56.585
58.497	1.635	1.515	1.561	1.497	1.442	1.408	1.397	59.374
F1.355	1.537	1.617	1.564	1.500	1.444	1.409	1.399	52.253
62.825	1.638	1.513	1.565	1.501	1.445	1.410	1.399	63.777
₽4.°84°	1.549	1.523	1,567	1.503	1.447	1.412	1.491	56.76ª
68,955	1.542	1.522	1.559	1.594	1.448	1.414	1.403	69.901
72.175	1.544	1.524	1.570	1.586	1.450	1.415	1.494	73.139
73-825	1.545	1.525	1.571	1.597	1.451	1.415	1 • 405	74.797
77.235	1.645	1.525	1.573	1.538	1.452	1.417	1.405	78.196
81.696	1.548	1.528	1.574	1.509	1.453	1.418	1.467	81.706
84.301	1.549	1.529	1.575	1.511	1.454	1.0419	1.408	85.331
a6.147	1.556	1.520	1.575	1.511	1.455	1.419	1.478	
86.950	1.551	1.531	1.577	1.512	1.456	1.429	1.409	
93.834	1.552	1.632		1.513	1.457	1.421	1.410	
97.854	1.653	1.633		1.514	1.458	1.422	1.411	
99.928	1.653	1.533	1580	1.515	1.45R	1.422		101.044
134.155	1.654	1.634		1.516	1.459	1.423		105.294
108.518	1.555	1.535	1.581	1.518	1.460	1.424		189.681
113.021	1.555	1.675	1.592	1.517	1.450	1.424		114.219
115.327	1.656	1.535	1.582	1.517	1.451	1.425		116.528
120.051	1.657	1.636	1.583	1.51°	1.461	1.425		121.277
124.927	1.657	1.537		1.519	1.462	1.425		125.181
129.952	1.659	1.533	1.584	1.519	1.462	1.425		133.876
132.541	1.658	1.579	1.584	1.519	1.463	1.427		139.150
137 - 825	1.559		1.585 1.585	1.520 1.52°		1.427		144.638
143.283	1.559	1.539			1.453 1.464	1.427		150.308
148.922	1.559	1.539	1.585 1.585	1.521	1.464	1.428		153.213
151.812	1.659	1.639 1.640	1.586	1.521 1.521	1.454	1.428		159.170
157.735 163.859	1.559 1.559	1.540	1.587	1.521	1.455	1.429		165.327
176.190	1.668	1.549	1.587	1.522	1.465	1.429		171.693
173.435	1668	1.540	1.587	1.52?	1.465	1.429		174.956
180.093	1.659	1.540	1.587	1.527	1.465	1.429		181.651
186.930	1.650	1.543	1.587	1.523	1.455	1.429		188.575
194.194	1.556	1.541	1.588	1.523	1.455	1.430		195.739
201.476	1.55n	1.641	1.588	1.523	1.466	1.430		203.151
COTALLS,	* *	A = 1/1 A	A - 1011	** > . W	± + · · · ·	,	,	

	MACH 410 =	10.00	CONE	ANGLE	=	6.00		ANGLE	OF	ATTAC	K =	1.00
		D /	D ED	EE-STR	EAM	A T	Di	ANF	ANGL	ce		
L/S	N 0.	₹0.		60.	90			9 •	150		1-80.	S/PN
L/\		• • •		00.	74	•	7.	U 4	1)0	•	1.6.2.	37
.89	5 8 <b>.</b> 039	7.954	7.	763	7.49	15	7.2	35	7.05	9 6	.984	1.456
1.00					7.25		6.9		6 - 31		.750	1.575
1.07					7.20		6.9		6.78		.720	1.643
1.23	9 7.422	7.355	7.	174	6.93		6.7		4.53		.476	1.811
1.42		7.919	6.		6.62		6.4	04	6.24	8 5	.192	2.000
1.63	9 6.714	6.655	6.	497	5.28	15	5.8	83	5.93	9 5	-887	2.213
1.88					5.92		5.7		5.51		•562	2.456
2.15					5.55				5.26		. 225	2.732
2.45		5.466			5.18				4.92		.882	3.048
2.81		5.091			4.81		4.6		4.54		• 546	3.400
3.41					4.31		4.1		4.19		• 07-7	3.995
3.85					4.01		3 . 8		3.82		.793	4.439
4.77		3.947			3.73		3.6		3.55		•533	4.922
4 . 85		3.694			3.49		3.3		3.32		•298	5.445
5.41		3.473			3.27		3.1		3.11		.089	6.008
6.91					3.09		2.9		2.92		905	6.611
6.65					2.92		2.8		2.76		. 7.44	
7.33		2.976			2.78		2.5		2.62		•:6°C.4	7.938
8.05					2.66 2.55		2.5		2.50		-4P-3	8.661
8.89		2.755 2.632					2.4		2.39		• 378 267	
10.87		2.557			2.42		2.2		2.26		• 247 • 174	
11.76					2.30		2.1		2.13		• 112	
12.58		2.470			2.25		2.1		2.98		059	13.321
13.64		2.436			2.21		2.1		2.03		014	
14.64		2.413			2.17		5.0		1.99		975	
15.67		2.392			2.15		2.0		1.95		944	
16.73		2.389			2.13		2.0		1.94		917	
17.83		2.374			2.11		1.9		1.92		895	
18.95					2.19		1.9		1.90		.878	
20.72	-	2.334			2.09				1.88		.859	
21.93					2.09		1.9		1.87		· 851	22.625
23.18	8 2.467	2.412	2.	269	2.10	.5	1.9		1 . 87		-846	23.882
24.47		2.432			2.10		1.9		1.87		. 844	25.174
25.79	4 2.515	2.455	2.	299	2.11	ď	1.9	58	1.87	5 1	. 844	26.502
27.15	2 2.543	2.430	2.	319	2.13	32	1.9	75	1.87	A 1	.847	27.867
28.54		2.509	2.		2.14		1.9	35	1.89	5 1	.852	29.271
20.93					2.15		1.9		1.89		<b>.</b> 85-9	30.714
31.45		2.571			2.1-9		2.0		1.99		. 868	32.198
72.97		2.605			2 • 20		5 • 6		1.91		.879	33.724
35.33		2.555			2.23		2.0		1.93		.897	36.096
36.06					2.26		2 - C		1 • 94		• 911	37.736
38.64					228		2.0		1.95		.925	39.424
40.37					2=3-3		2.1		1.99		941	41.162
42.15	4 2.880	2.797	7•	584	2 • 33	4	2 • 1	25	1.99	8 1	• 958	42.952

МАС	)H NO =	10.27	CONF	ANGLE	=	6.00	1	ANGL	E OF	ATT	ACK =	1.00
		D /	D ES	EE-STE	PEAM	۸ ۱۰	DI	ANE	ANGL	EC		
LIRN	2.	30.		50 ·		3.		9 •			180.	SZPN
27	• •	, <u>, , , , , , , , , , , , , , , , , , </u>		504	,	•		. • •	1.0	•	100	227
43.987	2,915	2.830	2.	614	2.3	59	2.1	.46	2.01	. 6	1.975	44.795
45.875	2.948	2.963	2.	644	2.3	84	? • 1	.66	2.97	. 4	1.992	46.693
47.818	2.989	2.894	2-•	672	2.4	0 ጻ	2.1	86	2.05	2	2.010	
49.819	3.911	2.924		790	2.4	32	2.2	197	2.07	0	2.027	50.659
51.878	3-046	2.952		726	2 • 4		2.2		2.08	<b>ያ</b> ጸ	2.045	
55.077	3.996	2.992		76 <sup>7</sup>	2.4		2.2		2.11		2.070	
57.286	3.125	3.016		785	2.5		2.2		2.13		2.087	
59.556	3.129	3.033		808	2.5		2 • 2		2.14		2.103	
61.888	3.150	3.950		829	2.5		2.3		2.18		2.118	62.794
64.232	3.171	3.081		848	2.5		2.3		2.17		?.133	65.202
66.740	7.190	3.099		866	2.5		2.3		2.19		2.147	67.674
69.263	3.207	3.117		883	2.5		2.3		2.20		2.160	70.210
71.951 74.506	3.234 3.239	3.133		899	2.6		2.3		2 • 21		2.173	72.812
77.228	3.253			914 929	2.6 2.6		2.3		2.23		2.185 2.196	75.483 78.219
81.376	3.273	3.182		948	2.5		2.4		2.25		2.211	
84.192	3.294	3.194		959	2.6		2.4		2.29		2.220	
87.025	3.295	3.255		970	2.5		2.4		2.27		2.228	
89.909	3.304	3.215		980	2.6		2.4		2.28		2.236	
92.837	3.317	3.224		990	2.7		2.4		2.29		2.243	
95.815	3.320	3.232		998	2.7		2.4		2.20		2.250	
98.848	3.327			016	2.7		2.4		2.3		2.257	
101.940	3.332	3.245		014	2.7		2.4		2.31			103.067
105.096	<b>3.337</b>	3.251	3.	921	2.7	30	2.4	75	2.31	. 7	2.268	106.241
198.321	3.348	3.255	3:∙	027	2.7	37	2.4	82	2.32	2	2.274	109.483
113.294	3.743	3.260	₹.	035	2.7		2.4		2.33		2.281	114.483
116.795	3.344	3.362		939	2.7		2.4		2.33		_	117.913
120.196	3-, 343	3.263		043	2.7		2.5		2.34			121.424
123.772	3.343	3.264		947	2.7		5.5		2.34			125.019
127.434	3.341	3.263		049	2.7		2 • 5		2.34			128.701
171.185	3.349	3.262		951	2.7		2.5		2.35			132.473
135.028	3,330	3.261		052	2.7		2.5		2.39			136.338
138.967	3.339	3.261		053	2.7		2.5		2.39			140.29A
143.005	3.378	3.260		053	2.7		2.5		2:39			144.358
147.144	3.33A	3.260		053	2.7		2.5		2.38			148.520
153.551 157.960	3.338 3.338	3.259 3.259		052 052	2.7		2.5		2.37		-	154.963 159.395
162.482	3.338	3.259		052	2.7		2.5		2.37			163.942
167.121	3.338	3.259		-052	2.7		2.5		2.37			168.607
171.880	3.33A	3.259		052	2.7		2.5		2.38			173.393
176.755	3.378	3.259		052	2.7		2.5		2.38			178.304
181.777	7.378	3.259		05.2	2.7		2.5	-	2.35			183.344
186.921	3.337	3.259	-	052	2.7		2.5		2.38			188.516
192.200	3.377	3.259		053	2.7		2.5		2.38		-"	193.825
200.382	3.337	3.259	-	053	2.7		2.5	-	2.39			202.052

	мд	ርዘ ዛን =	15.00	COME ANG	LE = F.	DO ANGL	E OF AT	rack =	1.00
						- 0. 4 NF	****		
		_		P FPFF-S	,	T PLANE	ANGLES	4.00	SIPN
L/	ひり	0.	30•	<b>к</b> 0.	99•	123.	150.	180.	21414
. გ	95	17.432	17.238	16.795	16.207	15.638	15.233	15.088	1.466
1.0		16.915	16.655	16.223	15.648	15.691	14.694	14.559	1.573
1.1		16.3 40	1-6 - 189	15.775	15.237	14.715	14.343	14.209	1.717
1.3		15.566	15.424	15.04?	14.534	14.042	13.692	17.555	1.893
1.6		14.318	14.189	13.847	13.392	12.953	12.642	12.529	2.199
1.0		12.965	12.852	12.559	12.153	11.766	11.496	11.398	2.570
2.2		12.933	11.930	11.656	11.293	19.947	10.706	19.619	2.862
2.7	33	10.595	10.607	10.365	10.051	9.755	9.551	9.478	3.364
₹.3	60	0.497	4.408	9.194	8.919	9.662	8.486	8.424	3.944
3.7	88	8.757	8.585	8.485	9.231	7.997	7.837	7.7×2	4.375
4.5	S 1	7.795	7.729	7.544	7.313	7.133	6.962	6.914	5.091
5.2	97	6 <b>.</b> 393	6.930	F.754	6.538	6.343	6.213	5.170	5.892
5.8	74	₽•240	6.477	6.306	6.095	5.907	5.783	5.742	6.472
5.8	10	5,966	5.905	5.737	5.532	5.350	5.231	5.191	7.413
7.4	79	5.647	5,525	5.418	5.215	5 • C 35	4.918	4.879	A. 085
A -2		5 • 247	5.185	5.017	4 • 814	4.636	4.519	4.481	9.160
9.6		4.905	4.863	4.592	4.483	4 • 30 9	4.193	4.155	10.310
13.4		4:.747	4.683	4.511	4.305	4-125	4.008	7.970	11.117
11.7		4.525	4.450	4.283	4.073	3.890	3.772	7.733	12.385
17.3		4.349	4.282	4.393	3.884	3.697	3.577	7.538	13.717
12.9		4.254	4 • 134	3.997	7.777	3.597	3.466	3.426	14.640
15.4		4.130	4.056	3.871	3.64-3	3.448	3.324	3.283	16.071
16.8		4.353	₹•978	3.773	3.536	3.333	3.206	3.164	
17.0		4.919	3.930	3.729	3.476	3-269	7.179	7.096	18.575
19.4		7.954	3.879	3.658	3.473	3.188	3.053	3.009	20.143
21.0		7,978	3.848	3.615	3.347	3.123	2.983	2.937	21.756
22.1		3.971	3.837	3.596	3, 340	3.087	2.944	2.897	22 • 855 24 • 5 <sup>3</sup> 8
23.8		3.934	3.834	3.578	3.285	3.044	2.895	2.847	25.681
24.9		3.944	3.849	7.574	3.27?	3.922	2.369	2.819 2.785	
26.7		3.4 97 C	3.859		3.259	2.997	2.837	2.769	_
29.4		4-013	3.891	3.593	3.255	2.988	2.813	2.747	
20.5		4.042	3,91 %		3.258	2.974	2.502	2.773	
31.5		4-120	7.969		3.269 3.287	2•970 2•973	2•791 2•785	2.725	34.161
73.3		4.157				-	2.735	2.723	
34.6		4.217		3.709	3.393	2,978	2.789	2.724	
36.5	-	4.299			3.332	2•991 3•018	2.797	2.730	
38.4		4,388			₹•367 ₹•397		2-835	2.736	
39.7		4.450		-	3.435	3.047 3.047	2.820	2.748	
41.6		4.547			3.456	3.056	2.832	2.758	
43.0		4 - 614			3.515	3.096	2.853	2.775	
45.0		4.717			3.5£7	3.130	2.876	2.796	
47.0		<u>ቀ</u> ጳዖ <u>1</u> 4 • ጳዓያ			3.594	3.154	2.893	7.811	
48.4		4.795			₹•662	3.191	2.921	2.836	
	507 535	5. jgs			3.717	3-231	2.950	2.863	

М	wCH KO =	15.00	CONF	ANGLE	=	5.00	ANGLE	0F	<b>Δ-Τ-Υ</b>	ACK =	1.00
			. co	o	~ A M	۸ 🕶	DI ANE	ANGL	E C		
				EF-STR			PL ANE 120.		 ) •	180.	SIDN
L/RN	7.	3û•	,	63.	ġ,	y •	125.	15,	. •	7000	37
C/. 047	5.161	4.938	4.	386	3.7	56	3.258	2.97	7 1	2.882	54.880
54.017		5.030		464	3.8		3.300	3.00		2.911	
56.153 58.312		5.119		540	3.8		3.342	3.9		2.942	
59.764		5.176		59 D	3.9		3.371	3.09		2.963	
61.960		5.270		663	3.9		3.414	3.09		2.995	
64.180		5.338		734	4.0		3.457	3.12		3.028	
64.100 65.673		5.388			4.0		3.486	3.1		3.050	66.600
67.031		5.453		845	4.1		3.528	3.1		7.093	68.874
59.458				887	4.1		3.556	3.2		3.196	70.404
71.76		5.570		948	4.2	_	3.597	3.2		7.139	72.725
74.107		5.631		005	4.2		3.637	3.2		3.172	75.031
75.698				043	4.2		3.664	3.3		3.194	76.673
78.107				095	4.3		3.703	3.3		3.227	79.099
89.568				146	4.3		3.741	3.3	7 e	3.259	81.577
92.249				178	4.4		7.765	3.3	9.1	3.280	83 • 263
P4.818				224	4.4		3.892	3.4	23	3.312	85.851
87.47				267	4.4	5,6	3.837	3.4	55	7.343	88.517
89.28	=			294	4.5		3.860	3.4	76	3.363	90.344
92.09				333	4.5	58	3.894	3.5	06	3.393	93.167
94.029	-			356	4.5	82	3.916	3.5	25	3.413	95.108
97.019				389	4.6	19	3.949	3.5	5-5	7.442	
130.14			5.	418	4.6	, हु द	3.980	3.5	<b>34</b>		101.257
102.29			5.	434	4.5	75	4.031	3.6	0:2		103-427
105.659			5.	455	4.7	0.6	4.031	3.6			106.807
100.17		5.969	5.	469	4.7	35	4.050	3.6			110.346
111.62		5.351	5.	475	4.7	'53	4.078	3.6			112.801
115.43		5.743		479	4.7		4.105	3.6			116.637
119.45	0 6.135	5.934	5.	475	4.7	, da	4.131	3.7			120.674
122.24	₭ <b>₭.</b> ፴፬7			471	4 . A		4.148	3.7	-		123.485
125.63	3 6.387		_	462	4.8		4.171	3.7			127.896
131.17	<b>0 5.</b> 978			45,2	4. P		4.193	3.7	-		132.458
134.24	8 6.373			446	4.8		4.206	3.7			2 135.553
138.95	1 6.057			438	4.8	_	4.223	3.8			140.292
142.14	ବ ୫∙଼ମୁକ୍ଞ			, 474	4.8		4.234	3 • 8			143.498
147.05	g 5.058			428	4.8		4.247	3.8			2 148.426
152.03	1 5.053			423	4.8		4.258	3.8			153.494
155.53				421	4 . 8		4.254	3.8			156.961
160.85				417	4 . 8		4.271	3.8			5 162.306
155.35				413	4.5		4.275	3.8			5 167.849
170.16				411	4 . 5		4.276	3.8	-		2 171.665
176.C5				408	4.8		4.277	3 • 8			177.503
192.22				405	4 . 5		4.275		ותיב זהיב		5 183.790 6 188.685
186.49				463		319 317	4.275 4.273		10 <sup>-5</sup>		0 188.085 4 194.799
407 45	0 6 6 7 9	5.861	<b>h</b> .	. /4 13 7	4.7	53/	44773	٠,٠,٠	ע טי	• 1 3	4 x 344133

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4.817 4.273

4.272

3.794 194.799

3.910 3.796 201.862

MACH NO = 20.30 CONF ANGLE = 6.00 ANGLE OF ATTACK = b \ o Eben-clocyh 4 T PLANE ANGLES レノマベ 33. SIPN 2. 186. 63. 95. 120. 150. , ឧឲ្ធធ 70.519 30.220 25.443 28.494 27,401 26.688 26.431 1.466 25.554 1.638 1.066 20.175 28.992 28.166 27.185 26.233 25.309 27.991 27.643 26.952 26.032 25.142 24.539 24.230 1.981 1.227 2.186 1.512 25.739 25.516 74.892 24.052 23.249 22.631 22.474 1.996 2.763 22.351 19.983 19.812 22.550 21.324 21.125 21.455 3.711 2.432 25.372 19.903 19.446 18.845 18.276 17.879 17.737 17.772 3.533 2.051 17.524 17.221 15.6 .9 16.210 15.873 15.752 4.75 7.764 15.766 14.597 14.941 14.160 13.757 13.482 13.386 5. 757 4.467 13.349 13.234 12.918 12.524 12.165 11.325 11.842 5.252 11.937 11.898 11.533 11.136 18.895 19.587 10.513 5.847 10.374 5.426 11.271 9.987 9.641 9.334 9.132 9.865 7. 727 8.005 7,390 9.288 8.750 8.256 8.192 9.468 9.367 8.451 9. '59 9.446 P.733 8.632 P.354 3.019 7.724 7.533 7.470 10.574 9. 954 7.954 6.699 7.851 7.589 7.245 6.951 6.762 11.789 7.511 6.783 6.297 6.235 11.151 7.416 7.121 6.488 7.136 5.911 5..848 13.164 12.420 7.144 6.745 5.411 6.192 14.850 14.276 6.762 6.548 €.346 5.991 5.685 5.491 5.427 6.541 5.745 5.234 5.169 16.249 15.598 6.423 6.113 5.432 17.034 6.365 €.243 F. 913 5.540 5.219 5.017 4.950 17.594 12.014 6.257 5.719 5.322 4.988 4.713 19.584 €.194 4.778 5.965 22.541 5.605 5.192 4.631 4.561 21.220 E. 134 4.846 5.896 22.100 6.142 5.519 5.087 4.729 4.507 4.435 22.787 5.930 24.223 5.843 F.437 4.980 4.602 4.371 4.296 24.322 25.843 5.992 5.824 5,399 4.923 4..527 4.288 4.211 26.551 27.484 6.004 5.826 5.378 4.875 4.467 4.219 4.139 28.201 23.628 6.050 5.857 5.375 4.838 4.406 4.146 4.053 30.428 31.375 6.124 5.899 5.388 4.824 4: 372 4.133 4.017 32-114 37.957 E. 174 5.955 5.415 4.821 4.349 4.059 3.980 33.411 4.832 35.325 €.291 6.(52 5.473 4.331 4.537 3.943 36.186 F. 394 37.798 77.920 3.924 6.140 5.523 4.851 4.327 4.921 **79.735** 39.514 6.539 6.248 5.597 4.878 4.330 4.011 3.911 6.389 41.013 €.580 5.686 4.926 4.343 4.007 3.992 41.965 4.975 43.523 E. 821 6.511 5.773 4-.360 4.310 3.901 42.722 6.641 44.42¢ 8.367 5.853 5.020 4-.381 4.318 3.905 45.239 47.724 46.731 7.17-4 6.825 5.992 5.095 4.418 4.035 3.916 49,431 7.334 6.969 6. 35 5.157 4.052 3.929 49.234 4.450 3.945 51.098 7.499 7.117 E . 215 5.223 4.485 4.072 50.340 3:.971 53.218 52.354 7-721 7.319 6.356 5.317 4.538 4.104 54.934 3.993 54.641 7.889 7.472 6.472 5.390 4.581 4.131 55.723 4.018 56.595 8.056 7.625 €.590 5.467 4.626 4.151 57.950 8.276 4.203 4.055 58.844 7.828 6.749 5.572 4-690 59.631 8.438 7.979 4.740 4.238 4.085 60.525 6.859 5.652 51.290 8.597 G.734 4.791 4.273 4.116 62.263 9.127 6.988 67.51°C 8.891 4.862 4.160 64.435 P.323 7.146 5.843 4.323 4.195

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# NSWC/40L/TR 75-45

MΥ	ርዞ <i>''</i> () =	20.00	JUNE.	2 N.C	L= =	6.6	•	ANGLE	GF.	ΔT	TYCK =	1.0
			o tot	<b> 3</b>	Lafah			ANF	DNG			
F\シが	2.	₹2.	6	53.	9:	3 •	1 2	20•	15	0•	180.	435h
54.845	9.391	۹.೯٦٢	7. 7	379	6.01	· a	4.0	971	4.4	12	4.231	67.779
64.508	9,227	9.72P	7.1		5.09			227	4.4		4.268	69.451
73.731	9.799	8.836	7.6		6.21			102	4.4		4.318	71.587
72.425	9.523	9.016		?47	6.2			159	4.5		4.357	73.77
									4.5		4.397	75. 62
74.188	9.634	9.13	7.8		6.3			216				
75.352	Ç. 774	9.273	7.9		6.47			292	4.6		4.452	77.338 79.164
73,168	0,853	9.373		385	6.59			350	4.6		4.493	
79.895	Ç, 25¤	9.450		183	6.6			+ 38	4.7		4.536	80.91.
82.169	10.956	9.573		331	6.7			495	4.7		4.593	83.178
87.351	10.119	0,655		388	6.8			543	4.8		4.637	84.289
95.707	19.171	9.721		471	6.8			501	4.8		4.682	86.835
89.327	10.222	9.79F		74	6.9			578	4.9		4.742	89.759
33.242	10.246	9.819		545	7.35			736	5 • 0		4.788	91.3.5
92.228	11,257	9.871		113	7.1			794	5.0		4.835	93.302
04.96F	12.255	989€		792	7.2			371	5.1		4.899	96.353
97.530	10.240	9.972		343	7.2			929	5.1		4.947	98.188
9-3.275	19.219	c. 896		335	7.3			986	5.2			160.387
102.301	10.178	9.874		933	7.4			061	5.2			163.430
174.652	10.143	9.840	9.9	951	7.4	91		117	5.3			165.904
197.199	10.137	9.820	8.0	363	7.5	45	6.3	172	5.3	78	5.158	108.264
113.578	18.159	9.775	8.9	953	7.6	19	5.	244	5.4			111.382
117.150	10.323	9.741	8.6	95.Z	7.6	5 7	6.3	295	5.4	91		114.749
115.937	ç. 98 ç	9.717	8.4	936	7.6	91	<b>5.</b>	346	5.5			117.112
119.738	9.948	9654	8.9	935	7.7	36		410	5.5			120.964
122.737	c. q1 ç	9.634	8.	873	7.7	52	6.	456	5.6			123.979
125.836	9.994	9.617	8.	352	7.7	65	6.	499	5.6	87		127. 65
129.011	9.357	9.574	-8.1	818	7.7	73	6.	549	5.7	39		131.193
133.033	9.457	9.557	8.	795	7.7	71		582	5.7			134.361
136.138	0.835	9.540	8.7	774	7.7	64	5.1	611	5.8	ũ 9	5.601	137.424
147.277	9,819	9.521	8.	748	7.7	51	€	644	5.8	5 U	<u>5</u> 643	141.515
143.437	9.310	9.539	8.	732	7.7	39	6.	663	5.8	7₿		144.785
146.618	9.902	9.499	8.	717	7.7	25	6.1	678	5.9	34		147.983
157.901	9.797	9.489	A . :	793	7.7	១ ខ	6.	693	5.9	34	5.731	152.298
154.165	9.788	9.481	8.1	539	7.6	95	€.	769	5.9	54	5.753	155.585
157.474	9.795	9.475	8	57-9	7.6	93	6.	703	5.9	72	5.772	158.958
151.957	0.792	9.473		558	7.6		6.	734	5.9	92	5.794	163.425
155.475	9.782			663	7.6			791	6.0		5.838	166.382
158.900	9.782			654	7.6			698	6.3			170.435
173.695	C.784			647	7.6			6-91	გ. ე			175.217
177.39;	9.786	9.465		643	7.6			685	6.0			178,722
191.154	C.788			639	7.5			679	60			182.718
196.341	9.792			636	7.6			672	6.0			187.933
191.357	0.795			634	7.6			666	6.3			191.972
194.492	9,798			63:3	7.6			661	5.3			196.129
207.206	9,893			6 <b>3</b> -3	7.6			655	6 3			261.974

MAG	SH NO = 2	25 • 80	CONF ANGL	E = 6.0	O ANGL	E OF ATT	rack =	1.00
		<b>0</b> /	P FREE-ST	PEAM AT	FLANE	ANGLES		
E 40M	0.	30.	60.	90.	120.	150 •	180.	SZRN
F \ 3以	ધ •	30 •	00.	3.3.0				
.895	47.360	46.911	45.704	44.096	42.528	41.411	41.008	1.466
1.065	45.266	44.841	43.696	42.170	40.687	39.631	39,250	1.637
1.315	42.172	41.783	40.739	39.351	38.009	37.057	36.713	1.888
1.731	37.425	37.089	36.196	35.009	33.858	33.062	32.769	2.306
2.271	32.275	31.997	31.256	30.278	29.347	28.696	28.461	2.849
2.944	27.409	27.180	26.557	25.753	24.999	24.478	24.292	3.526
3.752	23,182	22.991	22.461	21.789	21.168	28.745	20.598	4.339
4.703	19.693	19.522	19.050	18.462	17.930	17.575	17.454	5.294
5.797	15.947	16.788	16-348	15.808	15.325	15.008	14.901	6.394
6.710	15.312	15.157	14.730	14.219	13.749	13.449	13.348	7.312 8.655
8.045	13.551	13.438	13.018	12.511	12.065	11.775	11.680	10.125
9.507	12.286	12.126	11.706	11.293	10.752	10.478	10.384	11.710
11.084	11.279	11.122	10.696	10.190	9.749	9.455	9.371	13.400
12.764	10.514	10.351	9.914	9.399	8.953	866 B	9.573 7.938	15.181
14-535	9.929	9.760	9.307	8.778	8.323	8.033	7.428	17.044
16.388	9.487	9.309	8.836	8.288	7.820	7.524	7.014	
18-310	9.159	8.969	8.473	7.900	7.417	7.114 6.857	5.756	20.466
19.791	8.973	8.775	8.258	7.665	7.167	6.572	6.467	
21-4811	8.794	P.582	8-035	7.411	6.892	6.379	6.231	
23.874	8.533	8.452	7-871	7.214	6.672	5.150	5.039	
25.970	8.622	8.379	7.759	7.063	6.496 6.357	5.397	5.881	
28.090	8.615	8.351	7.689	6.952	6.248	5.873	5.753	
30.228	8.653	8.367		6.875	6.166	5775	5.650	
32.374	8.733	8.423		6.827 6.804	6.107	5.598	5.568	
34.523	9.853	8.516	7.696	5.893	6.076	5.653	5.518	
35.132	я.967	8,609		6.820	6.051	5.607	5.467	_
38.270	9.148	8.758 8.937		6.856	6.041	5.575	5.429	41.184
40-396	9.359	9.141		F.909	6.046	5.557	5.404	43.305
42.506	9.597	9.367		6.977	6.053	5.549	5.390	
44:.597	0.859	9.612		7.059	6.091	5.552	5,386	47.489
46.667	10.141	9.874	-	7.152	6.130	5.564	5.390	
48:-714	10.455	10.148		7.256		5.584	5.402	51.584
50.738	10.791	10.361		7.340	5.217	5.603	5.416	
52.241 54.223	11.317	10.652		7.459	6.277	5.634	5.439	
56.183	11.647	10.948		7.585	6.342	5.671	5.468	
58.119	11.978	11.247		7.715	6.413	5.713	5.501	
60.034	12.308	11.547		7.853	6.489	5.759		
61.929	12.532	11.345		7.993	6.568	5-808	5.581	62.836
63.815	12.950	12.139		8.137	6.651	5.852	5.626	
65.666	13.259	12.427		8.283	6.737	5:• 91.8		
67.052	13.484	12.639		8.394	6.893	5.962		
6-8.892	13.773		-	A. 544	6 · 893	F.023		
76.724					6.986	6.086		
72.552			11.263	8.846	7.031	6.151	5.878	1 10.570

MACH NO = 25.00CONE ANGLE = 6.00 ANGLE OF ATTACK = P FREE-STREAM P / AT PLANE ANGLES L/RN 0. S/RN 30. 60. 90. 120. 150. 180. 11.478 74.382 14.547 13.676 8.998 7.177 6.219 5.938 75.357 13.905 76.217 14.769 11.588 9.151 7.275 6.289 6.000 77.203 78.063 14.969 14.118 11.893 9.304 7.375 6.360 6.064 79.059 79.926 15.146 14.313 12.093 9, 457 7,476 6.434 6.131 80.932 7.553 81.337 15.262 14.448 12.238 9.572 6.490 6.182 82.351 83.243 15.393 14.609 12.425 9.725 7.658 6.568 6.252 84.267 12.603 85.181 15.495 14.748 9.877 7.764 6.647 6.325 86.216 7.871 87.159 15.567 14.862 12.772 10.029 6.729 6.400 88.204 89.182 15.610 14.950 12.929 7.981 6.478 10.179 6.813 90.239 91.259 15.623 15.011 13.073 10.328 8.092 6.899 6.558 92.328 93.396 15.618 15.043 13.201 18.476 8.204 6.987 6.641 94.476 95.593 10.619 15.572 15.048 13.311 7-077 6.726 96.685 8.317 97.285 15.531 15.036 13.381 10.725 8.403 7.146 6.792 98.386 7.240 99.606 15.462 14.999 13.455 10.860 8.518 6.881 100.721 102.011 15.381 14.944 13.506 10.990 8.633 7.335 6.973 103.139 104.502 15.293 14.874 13.533 11.112 8.748 7.432 7.068 105.643 7.163 108.227 107.072 15.202 14.795 13.537 11.224 8.862 7.530 109.729 14.711 13.520 8.974 7.628 7.260 110.899 15.112 11.325 112.485 15.025 14.625 13.483 9.084 7.726 7.359 113.671 11.412 7.458 116.554 115.353 14.943 14.540 13.432 11.485 9.191 7.824 117.573 14.886 14.479 13.387 11.528 9.269 7.897 7.532 118.786 120.612 14.817 14.403 7.993 13.320 11.570 9.368 7.631 121.842 123.751 14.756 14.334 13.251 11.593 9.460 8.086 7.728 124.998 127.003 14.705 14-273 13.181 11.600 9.546 8.177 7.823 127.268 130,338 14.662 14.220 13.114 11.590 9.622 8.263 7.914 131.621 13.054 133.667 14.629 14.179 11.570 9.688 8.342 7.999 134.968 13.001 136.989 14.604 14.145 8.414 8.077 138.310 11.541 9.742 140.311 14.586 14.118 12.954 11.507 9.785 8.480 8.148 141.649 12.924 14.575 11.480 8.525 142.804 14-103 9.811 8.198 144.157 146.136 14.566 14.086 12.889 11.443 9.836 8.579 8.258 147.507 12.859 149.481 14.561 14.075 11.407 9.851 8.627 8.312 150.870 14.559 14.067 12.834 9.859 8.658 8.360 154.252 152.844 11.372 8.703 156.233 14.560 14.063 12.814 11.339 9.859 8.402 157.659 159.651 14.563 14.061 12.798 11.308 9.854 8.732 8.437 161.096 9.845 14.568 14.063 12.785 8.754 163.106 11.280 8.467 164.570 14.574 14.066 12.775 11.255 9.832 8.490 168.086 166.603 8.771 169.257 14.579 14.069 12.770 11.237 9.821 8.779 8.504 170.755 172.844 14.587 14.074 12.764 11.216 9.805 8.786 8.517 174.361 176.490 14.595 14.080 12.761 9.789 8.788 8.524 178.027 11.198 180.202 14.603 14.087 12.760 11.182 9.772 8.786 8.526 181.760 9.755 183.988 14.612 14-095 12.761 11.169 8.779 8.523 185.568 187.856 14.620 14.103 12.763 9.739 8.770 8.516 189.456 11.157 14.110 191.812 14.628 12.766 11.148 9.724 8.759 8.505 193.434 195.865 14.118 12.771 9.709 8.746 14.635 11.140 8.490 197.509

11.134

8.732

8.473 201.692

9.696

12.776

14.125

200.024

MACH NO = 30.00CONE ANGLE = 6.00 ANGLE OF ATTACK = P / P FREE-STREAM AT PLANE **ANGLES** S/RN L/RN 0. 30. 60. 90 . 120. 150. 180. .895 67.950 67.324 65.579 63.259 59.410 58.833 61.010 1.456 63.5°1 52.990 55.779 61.401 59.285 57.236 55.252 1.713 1. 141 51,753 1.408 58.835 58.296 56.850 54.927 53.071 51.275 1.982 45.415 51.333 50.107 46.919 45.816 1.851 51.794 48.480 2.427 37.964 2.588 42.581 42.222 41.254 39.991 38.795 37.666 3.168 35.730 34.912 32.213 31.976 3.325 36.028 33.863 32.885 3.909 4.202 30.451 30.195 29.487 28.597 27.783 27.236 27.047 4.790 5.497 25.010 24.781 24.146 23.366 22.666 22.205 22.049 6.093 1-8.965 7.294 6.692 21.747 21,527 20.922 20.186 19.532 19.107 8.021 19.254 19.037 18.444 17.729 17.098 16.690 16.555 8.630 9.474 17.350 17.133 16.541 15.833 15.212 14.311 14.679 10.092 14.759 11.448 15.582 15.360 14.046 13.426 13.028 12.896 12.076 13.138 14.532 14.302 13.686 12.960 12.333 11.933 11.801 13.776 15.562 14.915 13.725 13.485 12.848 12.102 11.464 11.058 10.925 17.239 12.980 11.274 12.725 12.052 10.613 10.198 10.062 17.900 19.169 12.550 12.279 11.573 10.761 10.079 9.653 9.513 19.840 11.203 21.149 12-235 11.947 10.353 9.645 9.207 9.064 21.831 9.293 11.709 10.922 10.030 8.840 8.693 23.170 12.016 23-864 25.739 11-854 11.519 10.672 9.721 8.945 8.472 8.319 26.447 10.541 27.818 11.803 11.443 9.537 8.726 8.236 8.078 28.537 29.907 11.814 9.399 8.550 8.041 7 . 87 8 11.426 10.462 30.638 32.523 11.910 9.284 8.381 7.847 7.676 33.268 11.481 10-430 34.610 12.947 11.582 10.452 9.231 8.281 7.724 7.548 35.366 36.685 12.233 11.728 10.512 9.209 8.208 7.627 7.444 37.453 7.536 7.343 39.256 12.529 9.221 8.149 40.038 11.969 10.635 7.484 41.288 12.811 12.204 10.768 9.259 8.126 7.284 42.081 7.448 7.240 43.295 13.129 12.473 10.929 9.317 8.121 44.100 9,396 45.275 13-478 12.771 8.131 7.427 7.210 46-090 11.115 13.954 13.180 9.517 7.419 7.190 47.709 11.377 8.164 48.538 49.623 14.36u 13.532 11.608 9.631 8.204 7.424 7.186 50.452 51.506 13.902 9.758 8.255 7.439 7.191 52.355 14.785 11.856 53.817 15.336 14.385 7.470 7.210 54.679 12.184 9.933 8.331 55.632 15.789 14.785 12.460 10.084 8.401 7.503 7.232 56.504 15.192 12.745 57.419 16.248 10.243 8.479 7.543 7.262 58.301 59.177 16.709 15.605 13.038 10.409 8.562 7.588 7.296 60.069 61.339 17-285 16.123 13.413 10.626 8.674 7.651 7.347 62.242

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67.728

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71.011

72.636

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76.270

77-884

53.041

64.721

66.794

68.434

70.060

71.675

73.685

75.289

76.895

17.742

18.190

18.737

19.159

19.565

19.952

20.405

20.741

21.049

16.538

16.949

17.456

17.852

18.238

18.613

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19.725

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15.714

16.014

MACH NO = 30.00CONE ANGLE = 6.00 ANGLE OF ATTACK = PLANE P / P FREE-STREAM AT ANGLES L/RN 120. SZRN 0. 30. 60. 90. 150 4 180. 78.909 21.391 20.098 16.672 12.720 9.875 8.425 8.008 79.910 80.532 21.628 20.370 16.954 12.927 10.004 8.514 8.086 82.169 21.829 20.616 17.228 13.136 10.135 8.605 8.168 83.187 13.398 85.272 84.242 22.028 20.882 17.558 10.303 8.724 8.274 85.928 22.143 21.059 17.810 13.609 10.441 8.822 8.362 86.967 87.642 22.218 21.202 18.048 13.820 10.582 8.924 8.454 88.691 8.550 69.391 22.255 21.310 18.271 14.032 10.726 9.029 90.449 10.911 22.249 21.393 18.525 14.295 9.165 8.674 92.703 91.633 22.207 18.704 14.594 11..061 8.778 93.472 21.418 9.278 94.552 22.135 21.410 18.858 14.710 11.214 9.394 8.886 96.445 95.354 97.777 22.012 21.354 19.013 14.962 11.409 9.543 9.025 98.882 99.780 21.893 21.279 19.105 15.157 11.567 9.667 9.142 100.895 101.842 21.760 21.181 19.165 15.345 11.727 9.794 9.262 102.969 103.954 15.522 11.887 9.923 9.385 105.093 21.620 21.067 19.194 15.726 12.086 9.543 107.824 21.441 20.908 19.189 10.087 106.671 21.299 12.245 108.915 20.773 19.154 15.872 10.221 9.673 110.080 21.162 20.636 19.095 16.002 12.402 10.356 9.806 112.407 111.229 114.234 12.596 9.976 115.429 21.000 20.467 18.992 16.136 10.527 116.712 20.882 20.338 18.895 16.219 12.746 10.664 10.114 117.920 119.247 20.776 20.218 18.788 16.279 12.890 10.799 10.251 120.469 16.315 13.027 10.933 10.388 123.084 121.847 20.683 20.109 18.677 20.585 18.536 16.329 13.187 11.097 10.559 126.458 125.202 19.988 16.317 13-304 10.695 129.251 127.981 20.521 19.905 18.425 11.226 11.349 10.827 132.111 20.470 19.836 18.320 16.286 13.410 130.824 20.423 16.229 13.522 11.495 10.985 135.749 134.443 19.767 18.201 137.355 20.398 18.118 16.173 13.595 11.602 11.103 138.677 19.726 140.260 20.381 19.695 18.046 16.111 13.653 11.701 11.212 141.599 143.883 20.371 19.670 17.971 16.032 13.704 11.810 11.337 145.241 146.778 20.369 19.658 17.922 15.968 13.730 11.888 11.427 148.152 13.745 11.508 151.065 17.882 15.905 11.956 149.674 20.372 19.652 13.749 12.015 11.580 153.982 152.576 20.378 19.651 17.850 15.846 17.819 15.776 13.742 12.076 11.658 157.642 156.216 20.389 19.654 17.802 20.400 15.725 13.729 12,116 11.710 160.585 159.142 19.660 28.412 19.669 17.789 13.710 12-146 11.754 163.545 162.086 15.679 12.173 165.796 20.429 19.681 17.780 15.627 13.681 11.797 167.275 168.792 20.442 19.693 17.776 15.590 13,655 12.186 11.822 170.288 20.456 19.705 17.776 15.558 13.627 12.193 11.839 173.330 171.818 13.598 17.778 15.529 12.193 11.849 176.405 174.876 20.470 19.717 20.488 19.734 17.783 15.500 13.561 12.185 11.850 180.302 178.752 13.531 11.844 183.466 12.173 181.899 20.501 19.747 17.789 15.480 13.503 20.515 19.760 17.797 15.464 12.158 11.833 186.677 185.091 189.153 13.469 12.134 11.811 190.760 20.531 19.775 17.808 15.448 20.543 192.463 19.788 17.817 15.438 13.443 12.113 11.788 194.089 12.089 13.419 11.762 197.478 195.834 20.554 19.800 17.827 15.431

15.425

13.391

12.059

11.725 201.806

17.840

200.138

20.568

	MACH	NO =	3.50	CONE	ANGLE	=	7.00	ANGLE	OF	ATT	ACK	=	1.00
					cc 0 <b>.</b>		4 T	DI ANE	ANGL	EC			
		•			EE-STR	₹ΕΑΜ 90		PLANE 120.	150		4 :	80.	SZRN
L/R	(N	0.	30•		60•	90	•	1500	100	•		.,	
•87	, δ	1.545	1.532	1.	500	1.45	6	1.413	1.38	33	1.	372	1.449
•93		1.489	1.477		445	1.40		1.360	1.33			319	1.501
.98		1.529	1.517		484	1.44		1.397	1.3		1.	354	1.556
1.10		1.557	1.545		512	1.46		1.425	1.39	94	1.	382	
1.24		1.556	1.544		512	1.46	9	1.426	1.39	96		385	
1.40		1.547	1.535		503	1.48		1.419	1.39			379	
1.57		1.534	1-523	1.	491	1.45		1.409	1.3			370	
1.66		1.526	1.515		484	1.44		1.403	1.3			364	
1.87	75	1.508	1.497		467	1.42		1.388	1.3			351	
2.10		1.486	1.475		446	1.40		1.371	1.3			335	2.684
2 • 3		1.459	1 • 44-9		421	1.38		1.349				315	2.939
2.63		1.434	1.425		398	1.30		1.329	1.3			298	3.220 3.527
2.9		1.412	1.402		375	1.3		1.310	1.2			280	
3.2		1.391	1.382		356	1.3		1.291	1.2			262	
3.45		1.382	1.373		346	1.3		1.282 1.266	1.2 1.2			253 238	
3.8		1.366	1.357		331	1.29		1.254	1.2			226	
4.2		1.353	1.344		318 308	1.2		1.245	1.2			218	
4.6		1.343	1.334 1.327		301	1.2		1.239	1.2			212	
5.1		1.336	1.322		296	1.2		1.234	1.2			208	
5.6		1.329	1319		293	1.2		1.232	1.2			206	
6.4		1.328	1.319		293	1.2		1.231	1.2			205	
7.0		1.329	1.320		293	1.2		1.231	1.2			206	7.675
7.6		1.331	1.322		295	1.2		1.233	1 - 2		1.	207	
8.3		1.335	1.325		299	1.2		1. • 236	1.2	17	1.	211	
9.0		1.340	1.330		.303	1.2	70	1.240	1.2	21		215	
9.8		1.345	1 - 335		.308	1.2	75	1.245	1 • 2			220	
10.5		1.351	1.341	1	• 313	1.2		1.250	1.2			225	
10.9	97	1.354	1-344		.316	1.2		1.253	1.2			227	
11.8	48	1.360	1.350		• 322	1.2		1.259		3-9		233	
12.7		1.366	1.356		• 328		94	1.264		4.5		539	
13.6		1.372	1.362		• 333		0 0	1.270	1.02			244	
14.6		1.377	1 • 367		. 339	1.3		1.275	12			250	
15.7		1.383	1373		. 344	1.3		1.280	1.2			255 259	_
16.7		1.388	1.378		• 349	1.3		1.285	1.2			262	
17.3		1.391	1.380		• 351	1.3		1.287 1.291	1.2			266	
18.5		1.395	1.385		•356	1.3 1.3		1.295	1.2			270	
19.7		1.400	1.389		•360 •364	1.3		1.299	1.2			274	
21.0		1.404	1.393 1.397		• 368	1.3		1.302		28-3		277	
22.3		1.408	1.400		•371	1.3		1.306	1.2			280	
25.2		1.414	1.403		• 374	1.3		1.308	1.2			283	
25.9		1.414	1.405		• 376	1.3		1.310	1			. 284	
27.5		1.418	1.408		.378	1.3		1.312		292	1	. 286	28.288
29.1		1.421	1.41		-381	1.3		1.314	1.	295	1-	-288	9 29.921

МД	CH NO =	3.50	CONE ANGL	E = 7.1	00 ANGL	E OF AT	TACK =	1.00
4.40.11	•		P FREE-ST			ANGLES		
Γ\δΝ	0 •	30•	60•	90•	120.	150.	180.	S/RN
30.827	1.423	1.412	1.383			1.297	1.290	31.623
32.588	1.425		1.385		1.318	1.298	1.292	33.397
34.423	1.427	1.416	1.387	1.351	1.320	1.300	1.294	
₹5 • 369	1.428	1.417	1.388	1.352	1.321	1.301	1.294	36.199
37.329	1.430	1.419	1.389	1.354	1.322	1.302	1.296	38.154
39.351	1.431	1.420	1.391	1.355	1.324	1.303	1.0297	
41.464	1.433	1.422	1.392	1.356	1.325	1.305	1.298	
43.664	1.434	1.423	1.393	1.357	1.326	1.305	1.299	
45.953	1 • 435	1.424	1.394	1.359	1.327	1.307	1.300	
48.333	1.436	1.425	1.395	1.360	1,328	1.308	1.301	49.260
49.559	1.437	1.426	1.396	1.360	1.328	1.398	1.301	50.495
52.083	1 • 438	1.427	1.397	1.361	1.329	1.309	1.302	53.038
54.797	1.439	1.428	1.398	1.362	1.33.0	1.309	1.303	55.682
57.435	1 • 440	1.429	1.399	1.362	1.331	1.310	1.303	58.430
50.269	1.440	1.429	1.399	1.363	1.331	1.311	1.304	
63.215	1.441	1.430	1.400	1.364	1.33-2	1.311	1.305	64.253
66.275	1.442	1.431	1.401	1.364	1.33-2	1.312	1.305	67.336
67.849	1-442	1.431	1.401	1.365	1.333	1.312	1.305	68.922
71.089	1.443		1.402	1.365	1.333	1.31?	1.306	72.186
74.454	1.443		1.402	1.366	1.334	1.313	1.306	75.577
77.948	1.444		1.403	1.366	1-334	1.313	1.307	
₹1.577	1 • 444		1.403	1.367	1-334	1.314	1.307	
85.345		1.433		1.367	1.335	1.314	1.307	
89+258		1.434		1.367	1.335	1.314	1.307	
91.270		1.434		1.368	1335	1.314	1.308	
95.409	1 • 445	1.434	1.404	1.368	1336	1.315	1.308	96.690
99.7.07		1.435		1.368	1336	1.315	1.308	101-019
104.158		1.435		1.368	1.336	1.315	1.308	105.515
108.801		1.435		1.369	1-336	1.315	1.309	110.182
113.610		1.435		1,369		1.316	1.309	115.027
118.603	1.447			1•₃369	1.337	1.316	1.309	120.058
121.171	1.447			1.369	1.337	1.316		122.645
126.454	1.447	1436	1.406	1.369	1:•337	1.316	1.309	127.967
			1.406		1.337	1.316	1.309	133.494
137.635	1 • 447	1-• 436	1.406	1.370	1.337	1.316	1.309	139.233
143.551	1 • 447	1.436	1.405	1.370	1338	1.317	1.310	145.193
149,694	1.447	1.436	1.407	1.370	1338	1.317	1.310	151.382
156.075	1.448	1.437	1.407	1.370	1-•338	1.317	1.310	157-811
159.358	1.448	1.437	1.407	1.370	1.338	1.317		161.118
166.113	1.448	1.437	1.407	1.370	1.338	1.317		167.924
173.130	1-448	1.437	1.407	1.370	1.338	1.31-7		174.994
180.420	1.448	1.437	1.407	1.371	1.338	1.317		182.339
1-87.995	1.448	1. 43-7	1.407	1.371	1 <b>-• 33</b> 8°	1.317		189,970
195.865	1.448	1.437	1.407	1.371	1.338	1.317		197.900
204.043	1.448	1.437	1.407	1.371	1.338	1.317	1.310	206.139

M	ACH NO =	5.00	CONE ANG	LE = 7.	00 ANGL	E OF AT	rack =	1.00
		P /	P FREE-S	TRFAM A	T PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150.	180.	CABN
		0.0.0	000	500	120.	150 •	100.	S/RN
•878	2.579	2.557	2.497	2.418	2.341	2.286	2.266	4: 1.1.0
•931	2.474	2.452	2.393	2.315	2.239			
•991	2.526	2.504	2.445	2.366	2.289		2.214	
1.125	2.517	2.496	2.439	,2.362				
1.280	2.463	2.442	2.387	2.343	2.242	2 404	2•216 2•172	1-697
1.460	2.398	2.378	2.325	2.253	2.184			
1.658	2.398 2.324	2.304	2.254	, 2.186	2.120			2, 035
1.906	2.241	2 227	2 470		2.048		4 000	2.245
2.176	2.152	2.135	2.080	2.110	1.970			2.484
2.324	2.106	2.090	2.045	2.028	1.970 1.930		1.915	
2.647	2.019	2.003	1.060	1.986 1.904	1 0 7 3 0	1.891		
3.008	1.937	1.922	1 994	1.827.	1.851	1.815		
3.407	1.863	1.848	1 001	1.027	1.776	1.741		
3,846	1.797	1.783	1.808 1.743	1.603	1.707	1.674		•
4. 326	1.741	1.727	1.6143	1.593	1.645 1.591 1.545	1.613	1.602	
4.848	1.694		1.507	1.637	1.591	1.560	1.549	4.923
5.412	1.657		1.641	1.591	1.545	1.514	1.504	
6.019	1.629		1.603	1.555	1.507	1.477	1.466	6.017
6.339	1.617		1.574	1.523	1,477	1.446	1.435	
7.0.11			1.562	1.511	1.465	1.434		
7.726	1.600		1.543			1.413	.1.403	7.627
	1.589	1.574		1.478				8.348
8.486	1.584	1,568		1.470		1.389		
9.290	1.583	1.567		1.466				
10.138	1.586	1.569	1.523		1 • 415			
11.032	1.592	1.575	1.527	1.469				
11.971	1.601	1.583	1.534	1.475		1.386		12.625
12-956	1.612	1.594	1.543	1.482				13.617
13.465	1.618	1.599	1.548	1.486	1.431	1.395		14-130
14.519	1.631	1.611	1.559	1.496		1.403		
15.620	1.644	1.624	1.571	1.506	1.449	1.412		
16.769	1.658	1.638	1.583	1.517		1.421	1.409	17-458
17.965	1.671	1.651	1.595	1.528	1.469	1.431	1.418	18.664
19.210	1.685	1.554	1.608	1.540	1.479		1.428	19.918
25.504	1.698	1.676	1.619	1.550	1.490	1.450	1.437	21.222
21.848	1.710	1.688	1.631	1.561	1.499	1.460	1.447	22.576
23.243	1.721	1.699	1.641	1.571	1509	1.469	1.456	23.981
23.959	1.727	1.705	1.64.6	1.576	1.513	1.473	1.460	24-703
25.431	1.737	1.715	1.656	1.585	1.522	1.482	1.459	26.186
26.956	1.746	1.724	1.665	1.593	1530	1.489	1.476	27.722
28.534		1.733	1.673	1.601	1-537	1.497	1.483	29.312
30.167	1.753	1.741	1.681	1.608	1.544	1.503	1.490	30.957
31-855	1.770	1.748	1.688	1.615	1.551	1.509	1.496	32.658
33.599	1.777	1.754	1.694	1.621	1.556	1.515	1.502	34.416
35.491	1.783	1.760	1.700	1.626	1-562	1.520	1.507	36.231
37.262	1.788	1.766	1.705	1.631	1.566	1.525	1.512	

MA	CH NO =	5.00	CONE ANG	LE = 🔻 🗸	00 ANGL	E OF ATT	rack =	1.00
		D /	P FREE-S	TREAM A	T PLANE	ANGLES		
L/RN	0 •-	30 •	60.	90.	120.	150.	180.	S/RN
CZKN	U .	30 •	000	90•	1500	190 •	1004	37KN
38.215	1.791	1.758	1.708	1.634	1.569	1.527	1.514	39.065
40.165	1.796	1.773	1.712	1.638	1.573	1.531	1.518	41.031
42.177	1.800	1.777	1.716	1.642	1.577	1.535	1.521	43.058
44.252	1.804	1.781	1.720	1.646	1.580	1.538	1.525	45.148
46.391	1.807	1.785	1.724	1.649	1.583	1.541	1.528	47.303
48.595	1.811	1.788	1.727	1.652	1.586	1.544	1.530	49.524
50.866	1.814	1.791	1.730	1.655	1.589	1.547	1.533	51.812
53.205	1.817	1.794	1.733	1.658	1.592	1.549	1.535	54.169
55.615	1.819	1.796	1.735	1.660	1.594	1.551	1.537	56.596
56.846	1.820	1.797		1.661	1.595	1.552	1.538	
59.363	1.822	1.800	1.739	1.664	1.597	1.554	1.540	60.373
61.954	1.825			1.666	1.599	1.556	1.542	62.983
64.621	1.826	1.803		1.667		1.557	1.543	65.670
67.366	1.828	1.805		1.669	1.602	1.559	1.545	68.436
70.191	1.830	1.807		1.671	1.604	1.560	1.546	71.282
73.099	1.831	1.808		1.672	1.605	1.562	1.547	74.212
76.091	1.833	1.810		1.673		1.563	1.549	
79.172	1.834	1.811		1.675		1.564	1.550	80.330
80.746	1.834	1.811	1.751	1.675	1.608	1.564	1.550	81.916
83.964	1.835	1.813	1.752	1.676	1.609	1.565	1.551	85.158
87-277	1.836	1.814	1.753	1.677	1.610	1.566	1.552	88.497
90.690	1.837	1.814	1.754	1.678	1.611	1.567	1.553	91.935
94.207	1.838	1.815	1.755	1.679	1.612	1.568	1.554	-
97.831	1.839	1.816	1.755	1.680	1.613	1.569	1.554	99.129
101.567	1.839	1.817	1.756	1.681	1.613	1.570		102.893
105.419	1.840	1.817	1.757	1.681	1.614	1.570		106.775
109.393	1.840	1.818	1.757	1.682	1.615	1.571		110.779
111.427	1.841	1.818	1.758	1.682	1.615	1.571		112.828
115.593	1.841	1.818		1.683	1.616	1.572		117.025
119.893	1.841	1.819	1.759	1.683	1.616	1.572		121.357
124.332	1.842	1.819	1.759	1.684	1.617	1.573		125.830
128.917	1.842	1.819	1.759	1.684	1.617	1.573		130.449
					1.617			
138.545	1.842	1.820	1.760	1.685	1.618	1.574		140.149
143.600	1.842	1.820	1.760	1.685	1.618	1.574		145.242
148.823	1.843	1.820	1.760	1.686	1.618	1.574		150.505
151.500	1.843	1.820	1.761	1.686	1.619	1.575		153.202
156.988	1.843	1.821	1.761	1.686	1.619	1.575		158.731
162.660	1.843	1.821	1.761	1.686	1.619	1.575		164.446
168.523	1.843	1.821	1.761	1.686	1.619	1.575		170.353
174.584	1.843	1.821	1.761	1.686	1.619	1.576		176.459
180.849	1.844	1.621	1.762	1.687	1.619	1.576		1-82.771
187.325	1.844	1.821	1.762	1.687	1.620	1.576		189.296
194.021	1.844	1.822	1.762	1.687	1.620	1.576		196.042
200.943	1.844	1.822	1.762	1.687	1.620	1.576		203.016
					· -			

MA	/CH NO =	10.00	CONE	ANGL	.E =	7.00	A NGL	E OF	AT	TACK =	1.00
		n /	0 50	-c-c	TREAM	AT	PLANE	ANGL	F٩		
L/RN	0.	30.		60.	1 KEAN 90		120.	150			SZRN
LIKN	0.	30 •	,	00•	,	•	1204		•	2000	
.878	8.613	8.534	8.	322	8.03	<b>:</b> 9	7.763	7.58	56	7.495	1.449
.983	8.346	8.268		059	7.78		7.510	7.31	17	7.247	1.554
1.048	8.283	8.207		004	7.73		7.470	7.28	32	7.214	1.620
1.295		7.721		534	7.28	34	7.043	6.87	71	6.809	
1.486		7.355	7.	179	6.94	,4	6.718	6.55	58	6.499	
1.701		6.963	6.	799	6.58		6.370	6.22		6.168	
2.079	6.403	6.347		200	6.00		5.819	5.68			
2.370		5.931		795	5.6		5.447	5.32			
2.863		5.354		230	5 • 07		4.913	4 - 81		4.777	
3.231	5.045	5.002		886	4.73		4.595	4.49			
3.630	4.719			568			4.295	4.2			
4.290		4.256		150	4.01		3.894	3.8			
4.772		4.014		911	3.78	31	3.662	3.58	52	3.555	
5.555	3.747	3.710		608	3-48	10	3.365	3.28		3.261	6.728
6.118	3.579			439	3 4 3	12 57	3.197 3.052	2.97		-	7.327
-6.713		3.398		295 417	3.0	37	2.871	2.79			
7.663		3.223 3.128		021	2-8	9 <i>(</i>	2.771	2.6			8.960
8.334		3.016	٥. 2	ひろん	2.• 00 2.• 76	. O	2.648			2.541	
9.394		2.958	2.	20 Y	2.7	)	2.580				
10.135			2.	703 703	2.6					2.413	
12.102			2.	736	2.5	47	2.455				
12.933			2.	711a	2.5	55	2.419				
14.222					2.5						
15.110					2.5		2.358				
16.021		2.814		668		94	2.343				
17.427	-				2.4		2.329			2.193	18.121
18.391		2.842		681			2.325	2.2	19	2-184	19.093
19.876	-			701	2.4	99	2.325	2.2	15	2.178	
20.892		2.897	2.	720	2.5	10	2.330	2.2		2.176	
21.929	2.997			741	2.5		2.337	2.2		2.180	
23.525	3.049			779			2.353	2.2		2:+188	
24.615				807	2.5		2.366	2.2		2.196	
25.727	3.126	3.045				91	2.381				
27.437	3.188	3.103		885	2.6		2.408	2.2		2.224	
28.605	3.230	3.143		918	2.6		2.427	2.2		2.238	
30.401	3.295	3.204		971	2.6		2 • 458	2.3		2 • 262	
31.627		3.244		006	2.7		2-480	2.3		2.279 2.297	
32.878		3.285		041	2.7		2.503	2.3		2.32	
34.801		3.345		095	2.7		2.538 2.562	2.3		2.345	
36.114		3.384		129	2 · 8 · 2 · 8 ·		2.598	2.4		2.379	
38-132				181 213	2 - 8		2.622	2.4		2.39	
39.510				245	2:• 9		2.646	2.4		2.419	
40.914				291	2.9		2.681	2.5		2.446	
70 9 U / 1	U # U U J		~ •		/						

M/	ACH NO =	10.00	CONE	ANGL	E =	7.00	, מ	ANGLE	OF	ATT	ACK =	1.00
		5.4			0.514		-	4 21 ~	Mici			
	0		P FR					ANE	ANGL		4.00	S/RN
L/RN	0•	30•	Į	60•	90	J •	12	U •	150	. •	180.	37 KN
44.542	3.696	3.591	3.	320	2.9	39	2.7	03	2.52	4	2.465	45.441
46.801	3.740	3.634		361	3.0		2.7		2.55		2.494	47.717
48.342	3.758	3.661		386	3.04		2.7		2.57		2.513	49.269
49.912	3.793	3.687		411	3.07	72	2.7	77	2.59	2	2.532	5.0 - 851
52.321	3.829	3.722		445	3.1		2.8	05	2.61	. 8	2.558	53-278
53.966	3.852	3.744	3.	466	3.10	23	2.8	24	2.63	5	2.575	54.935
56.495	3.882	3.775	3.4	496	3.19	51	2.8	49	2.69	9	2.598	57.483
58.225	3.901	3.794	3.5	515	3.16	59	2.8	65	2.67	<b>'</b> 5	2.613	59.226
59.993	3.919	3.812		532	3.18		2.8		2.68		2.628	61-008
62.725	3.944	3.837		557	3.2		2.9		2.71		2.648	63.760
64.605	3.958	3.852		573	3 • 27		2.9		2.72		2.661	65.654
67.525	3.978	3.873		595	3.2		2.9		2.74		2.679	68.596
69.546	3.990	3,885		808	3.2		2.9		2.75		2.691	70.632
71.631	3.999	3.896		621	3.2		2.9		2.76		2.702	72.733
74.893	4.011	3.91:0		638	3.2		2.9		2.78		2.718	76.019
77.159	4.017	3.918		648	3.3		2.9		2.79		2.728	78.302
79.472	4.020	3.923		658	3 • 3:		2.9		2.80		2.737	80633
83.030	4.023	3.929		670	3.3		3.0		2.81		2.750	84.218
85.465	4.023	3.930		676	3.3		3.0		2.82		2.758	86.671
89.216	4.021	3.930		683	3.34		3.0		2 83		2.770	9.0 450
91.7786	4.019	3.929		685	3.3		3.0		2 - 84		2.777	93-039
94.414	4.017	3.928		687	3.3		3.0		2.84		2.783 2.793	95.687 99.773
98.469 101.252	4.015 4.014	3.926 3.925		688	3.3		3.01		2.85			102.576
105.549	4.014	3.923		687 686	3.3° 3.3°		3.0		2.87			106.906
108.500	4.013	3.923		685	3. 3		3.0		2.87			109.879
111.522	4.012	3.92.2		684	3.3		3.0		2.88			112.924
116.195	4.011	3.922		684	3.3		3.0		2.88			117-631
119.406	4.011	3.921		684	3.3		3.0		2.89			120.866
124.372	4.010	3.921		684	3.3		3.0		2.89			125.870
127.787	4.010	3.921		684	3.3		3.0		2.90			129.311
131.287	4.009	3.920		684	3.3		3.0		2.90			132.837
136.704	4.009	3.920		683	3.3		3.0		2.90			138.295
140.430	4.008	3.919		683	3 • 3		3.0		2.90		2.844	142.048
146.196	4.008	3.919		683	3.3		3.0		2.91	-0	2.846	147.858
150.163	4.007	3.919		583	3.3		3.0	98-	2.91	. 1	2.847	151.854
154.230	4.007	3.918	3.	683	3.3	80	3.0	98	2.91	. 1	2.848	155.953
160.527	4.007	3.948	3.	683	3.3	80	3.0	99	2.91	.1	2.849	162-296
164.858	4.007	3 • 91 8	3.	682	3.3	80	3.0	99	2.91	. 2		166.660
171.563	4.007	3.918	3.	682	3.3	80	3.0		2.91			173.415
176.175	4.007	3.91≅8		682	3.3		3.1		2.91			178-062
180.904	4.007	3.918		682	3•-3		3.1		2 • 91			182.827
188.225	4.007	3.91.8		681	3•-3		3.1		2.91			190.203
193.261	4.007	3 • 91-8		681	3- 3		3.1		2.91			195.277
201.057	4.008	3.918	3.	681	3.3	80	3.1	0 2	291	. 2	2.848	203.131

	MACH	NO =	15.00	CONE	ANG	LE =	=	7.00	,	NGL	.E 0	F AT	TACK :	=	1.00
			D /	P FPI		TDE		AT	PL	A NIC	ΔN	GLES			
1 15	) AI	Λ.	30•			IKE	90		120			50 •	18	Λ.	S/RN-
L/F	714	0.	ას •	,	60•		90	•	121	J •	1	20.	10	<b>u</b> •	371(1)
. 87	7 Q 4	8.664	18.491	18.	025	17	. /. 0	4 4	6.79	3 5	15.	364	16.2	n A	1.449
1.04		7.884	17.719	17.			68		6.1			695			1.616
1.20		7.141	16.985	16.		16			5.40			082	14.9		1.773
1.47		5.881	15.738	15.		14			4.35			008			2.048
1.80		4.499	14.371	14.			57		3.1		12.		12.7		2.379
2.19		3.065	12.952	12.			25		1.8			606	11.5		2.777
2.65		1.704	11.604	11.		10			0.6		10.		10.3		
3.17		9.474	10.385	10.			82		9.5		9.		9.2		
3.77		9.385	9.30-3	9.			. 79		8.5			352			4.363
4.68		8.181	8.106		897		63		7.39			237			5.268
5.48		7.458	7.384		181		92		6.7			548			
6.24		6.868			594							974			
7.12		6.392	6.318	6.								501			
8 • 0:7		6.011	5.935	5.					5.29			112			
9.07		5.707			420							793			
10.12		5.466	5.386		171		91		4.6	-		531			_
11.2		5.278			972			4		_		315			
12.36		5.133	5.046	4.		4.			4.2			137	4.0		13.023
13.9	-	4.998	4.905	4.			. 36		4.1			949			
15.17		4.932	4.834		5 <b>7</b> -5		. 27		4.0			837	3.7		
16.4		4.892	4.788		516		. 19		3.9			746	3.6	87	17.120
17.74		4.875	4.765		47-8		. 14		3.8	55		672	3.6	12	18.415
19.07		4.878	4.761		458		.10		3.8		3.	614	3.5	51	19.735
20.38	50	4.899	4.774	4.	454	4.	. 08	2	3.7	<b>5 7</b>	3.	569	3.5	04	21.077
21.7	12	4.935	4.80-2	4.	464	4	. 07	2	3.7	42	3.	536	3.4	68	22.439
23.08	<b>31</b>	4.985	4.84.4	4.	486	4.	. 07	3.	3.7	28	3.	513	3.4	42	
24.46	55	5.048	4.898	4.	520	4	. 08	5	3.7	22	3.	498	3.4		
26.33	31	5.149	4 • 98-7	4.	580	4	• 11	4	3.7	28	3.	490	3.4	12	
27.7	43	5.237	5.065	4.	636	4	. 14	5	3.7	40	3.	492	3.4	11	
29.19		5.334			700		• 18		3.7			500			
38.59		5.439			<b>77</b> :0		• 22		3.7			513	3.4		
32.0		5.550			847		• 27		3 • 8			530	3.4	_	
33.4		5.667							3.8			552			
34.9		5.787			015		• 38		3.8			577	3.4		35.746
36.3		5.910	<b>5 • 6 7</b> · 8		105		• 45	_	3.9			606	3.5		
37.8	-	6.034			198		۰51		3.9			637			
39.7		6.200			324		• 60		4.0			683	3.5		48.633
41.2		6.322			419		• 67		4.0			720	3.6		42.107
42.6		6.442			51-4		•74		4.1			759	3.6		43.583
44.1		6.559			608		. 82	-	4 • 1			799	3.6		45.063
45.6		6.672			702		. 89	-	4.2			840	3.7		46.547
47 - 1		6.782	6.500		793		• 96		4.2			883	3.7		
48.5		6.886			882		• 0-3		4.3			926	3.7		
50.0		6.986			969		•10		4.3			970	3.8		51.028
51.5	<b>さ</b> ち	7.080	6.790	6.	052	5	•17	4	4.4	4 4	4.	014	3.8	15	52.536

MA	CH NO =	15.00	CONE ANG	LE = 7.	00 ANGL	E OF ATT	ACK =	1.00
		P /	P FREE-S	TOFAM A	T PLANE	ANGLES		
L/RN-	0.	30.	60.	90.	120.	150.	180.	SZRN
•	•	30.	000	<del>50</del> •	150.	190 •	T00.	2) KM
53.596	7198	6.906	6.160	5.264	4.520	4.073	3.930	54.562
55.120	7.280	6.987	6.237	5.339	4.573	4.117		56.098
56.660	7.356	7.064	6.311	5.394	4.625	4.162	4.014	
58.221	7.426	7.136	6.381	5.456	4.67-7	4.206	4.056	59.222
59.804	7.490	7.202	6.449	5.517	4.727	4.250	4.097	
61.416	7.547	7.264	6.513	5.576	4.777	4.294	4.139	62.441
63.060	7.597	7.319	6.574	5.633	4.827	4.337	4.181	64.098
64.742	7.640	7.368	6.631	5.688	4.875	4.380	4.223	65.792
66.455	7.674	7.410	6.685	5.742	4.922	4.423	4.264	
68.838	7.707	7.455	6.749	5.810	4.984	4.479	4.319	
70.680	7.721	7.480	6.792	5.859	5.030	4.520	4.359	
72.582	7.727	7.496	6.830	5.90s	5.074	4.561	4.400	
74.551	7.726	7.505	6.862	5.951	5.117	4.601	4.439	
76.592	7.718		5.888	5.992	5.159	4.641	4.479	
78.709	7.705	7.500	6.907	6.031	5.199	4 • 680	4.517	79.864
80.909	7.689	7•489	6.919	6.066	5 • 23.9	4.717	4.555	82.081
83.200	7-671	7.475	6.924	6.097	5.276	4.754	4.592	84.389
85.590	7 • 653	7.459	6.923	6.124	5.312	4.790	4.628	86.796
88.936	7.530	7.436	6.913	6.152	5.356	4.835	4.675	90.168
91.6573	7.613	7.420	6.902	6.167	5.387	4.868	4.708	
94.325	7.598	7.405	6.889	6.176	5.415	4.899	4.740	95.597
97.143	7.584	7.391	6.876	6.180	5 • 439	4.927	4.770	
100.003	7.572	7.379	6.864	6.180	5.460	4 • 95 3		101.318
102.913	7.562	7.368	<b>6∙:85</b> 3	6.176	5.476	4.976		104.250
105.879	7 553	7.359	6.843	6.170	5 • 48 9°	4.997		107.238
108.910	7.546	7.351	6.834	6.153	5.498	5.015		110.291
112.013	7.539	7.343	6.826	6.156	5.504	5.031		113.418
116.279	7.532	7.335	6.816	6.146	5.506	5.048		117.716
119.587	7.528	7.330	6.810	6.140	5.505	5.057		121.049
123.001	7.524	7.326	6.804	6.134	5.503	5.064		124.489
126.531	7.522	7.322	6.799	6.129	5.499	5.067		128.045
130 - 188	7.520	7.319	6.795	6.124	5.495	5.069		131.729
133.985	7.519			6.120		5.068		135.555
137.934	7.519	7.316	6.788	6.116	5.487	5.066		139.534
142.050	7,519	7.31-6	6.785	6.112	5.484	5.062		143.681
146.348	7.528	7.316	6783	6.109	5.481	5.058		148.011
152.390	7.523	7.317	6.781	6.105	5.477	5.053		154.098
157.179 152.211	7.524 7.526	7.319	6•=780 6 700	6.103	5.475	5.049		158 923
167.508	7528	7.320 7.322	6.780 6.781	6.101	5.473	5.046		163.993
173.095	7.529	7.323	6.781	6.099 6.099	5.471	5.043		169.330
178.997	7.523	7.325	0•-791 6•:783	6.098	5 • 47 0 5 • 46 0	5.041		174.959
185.236	7.532	7.326	o <u>•</u> -≀13 6•-784	6•897 6•896	5 • 46 9 5 • 46 7	5.039 5.037		180-905
191.722	7=534	7.327	6=785	6 • 095 6 • 096	5.457	5.037 5.036		187-191
200.704	7.536	7.329	6 787	6.097	5 • 457 5 • 466	5-036		193.726
-000107	( • ) ) 0	1 - 04 7	0 -1-0 1	0.021	<b>2040</b> 0	5.035	4 • 577	202.775

M	VCH NO =	20.00	CONE AND	SLE = 7.	OO ANGI	LE OF AT	TACK =	1.00
		D /	P FREE-S	TOFAM A	T PLANE	ANGLES	:	
L/RN	0.	30•	60.	90.	120.	150.	180.	S/RN
CYM	<b>9</b> •	30 •	00•	90 •	150.	170.	100.	27 ((1)
.878	32.734	32,429	₹1.608	30.507	29.440	28.680	28.406	1.449
1.043	31.327	31.036	30.254	29.209	28.196	27.474	27.213	1.614
1.282	29.263	28.996	28.278	27.323	26.490	25.745	25.508	1.856
1.679	26.098	25.865	25.243	24.417	23.622	23.059	22.855	2.256
2.186	22.703	22.506	21.980	21.286	20.623	20.158	19.990	2.767
2.805	19.528	19.361	18.909		17.769	17.385	17.248	3.390
3.541	16.769	16.625	16.230	15.724		14.932	14.818	4.131
4.397		14.354	13.993	13.539		12.842	12.745	
5.372	12.685		12.216	11.789		11.145	-	
6.462	11.301	11.178	10.841	10.426		9.806	9.723	
7.659	10.253	10.129	9.790	9.377		8.764	8.683	-
8.951	9.463	9.335	8.990	8.571		7.956		
10.329		8.738	8.382	7.953		7.327		
11.781	8.432	8.293	7.921	7.476		6.834	6.750	12.433
13.296	8.114	7.966	7.575	7.111		6.446	6.359	13.968
14.865		7.733	7.320	6.831		6.140	6.050	15.541
16.479		7-,577	7.137	6.621		5.899	5.806	17.167
18.130	7.665	7 483	7.014			5.709	5.612	18.830
19.387		7.448	6.955		5.899	5.595	5.494	20.996
21.083		7-439	6.911	6.302		5,473	5.368	21.305
22.796	7.693	7.469	6.984	6.255	_	5.381	5.271	23.531
24.519			6.928			5.314	5.199	25.267
26.247		7.631	6.979	6.241	5.637	5,258	5.147	
27.975		7.757	7.056			5.239	5.112	28.749
29.638	8.215		7.154		5.633	5.224	5.092	
31.412	8.414		7.273	6.372		5.223	5.085	32.212
33.115	8.635		7.410			5.234	5.088	
34.803			7.562			5.254	5.101	
36.476				6.637		5.283	5.1.13	
38.132				6.747		5.319	5.152	
39.771						5,363		
41.392				6.990		5.412	5.229	
42.997								
44.587			8.678	7.257		5.525	5.326	45.485
46.161					_	5.588	5.381	
47.723		-				5.655	5.439	
48.887						5.706	5.485	
50.432						5.778	5.548	51.375
51.971						5.851	5.614	
53.507						5.927	5.682	
55.044				8.220		6.005	5.752	56.021
56.585				8.363		6.084	5.825	
58.136				8.504		6.166	5.899	
59.700						6.248	5.974	-
61.282						6.332	6.052	62.306

## NSHC/HOL/TR 75-45

МА	CH NO =	20.00	CONE ANG	LE = 7.0	O ANGLE	OF ATT	ACK = 1.00	
		P /	P FRFF-S	TREAM AT	PLANE	ANGLES		
L/RN	0 •	30.	60.	90.	120.	150.	180. S/RN	
LIKN	0 •	36•	00.	50 •	1200	2,00		
62.888	12.850	12.310	10.821	8.917	7.338	6.418	6.131 63.924	
54.522	12.937	12.419	10.960	9.050	7.444	6.505	6.212 65.571	
55.192	13.000	12.597	11.089	9.180	7.551	6.593	6.294 67.253	
67.901	13.641	12.575	11.205	9.307	7.657	6.682	6.378 68.975	
59.65R	13.059	12.621	11.308	9.429	7.764	6.773	6.464 70.745	
71.468	13.057	12.646	11.396	9.546	7.869	6.865	6.551 72.569	
73.336	13.036	12.650	11.467	9.658	7.974	6.957	6.639 74.450	
75.266	13.001	12.637	11.520	9.762	8.078	7.050	6.729 76.395	
77.265	12.955	12.608	11.555	9.858	8.180	7.143	6.820 78.410	
78.816	12.914	12.578	11.569	9.923	8.254	7.213	6.888 79.972	
89.946	12.856	12.530	11.573	10.001	8.351	7.305	6.979 82.118	
83.154	12.795	12.477	11.561	10.066	8.443	7.396	7.070 84.342	
85.447	12.735	12.420	11.535	10.118	8.531	7.486	7.160 86.653	
87.839	12.676	12.362	11.500	10.155	8.612	7.573	7.249 89.054	
90.291	12.622	12.307	11.458	10.178	8.686	7.656	7.335 91.533	
92.839	12.574	12.256	11.412	10.187	8.751	7.735	7.418 94.101	
95.473	12.531	12.209	11.365	10.183	8.807	7.809	7.497 96.754	
98.163	12.495	12.168	11.319	10.169	8.852	7.876	7.570 99.464	
199.878	12.466	12-134	11.278	10.148	8.886	7.935	7.636 102.199	
103.611	12.443		11.240	10.122	8.910	7.986	7.695 104.953	
136.369	12.424		11.208	10.694	8.924	8.030	7.747 107.732	
109.157	12.410		11.179	10.066	8.930	8.065	7.791 110.541	
111.982	12.400		11,155	10.038	8.923	8.093	7.828 113.387	
114.851	12.394	-	11.134	10.011	8.922	8.114	7.859 116.277	
117.769	12.390		11.117	9.987	8.910	8.128	7.882 119.217 7.898 122.215	
122.745	12.389			9.964	8.896	8.135	7.907 125.275	
123.785	12.389		11.092	9.944	8.880	8.136	7.910 127.623	
126.112	12.391			9.938	8.867	8.134 8.127	7.909 130.320	
129.285	12.394	-		9.914	8.850	8.116	7.903 134.104	
132.545	12.399			9.900	8.833 8.817	8.103	7.892 137.487	
135.902	12.404			9,888 9,878	8.802	8.088	7.878 140.977	
139.367	12.410			9.879	8.788		7.862 144.587	
142.950	12.417			9.864	8.776	8.056	7.844 148.329	
146.664	12.423			9.859	8.765	8.041	7.825 152.21	
150.523	12.429			9.856	8.755	8.026	7.805 156.26	
154.542	12.435			9.853	8.747	8.012	7.787 160.49	
158.737	12.441			9.853	8.740	7.999	7.769 164.91	
163.127	12.447 12.452			9.853	8.735	7.987	7.752 169.55	
167.732	12.456			9.855	8.731	7.977	7.737 174.439	
172.575 177.681	12.450			9.857	8.727	7.969	7.723 179.57	
183.077	12.464			9.860	8.725	7.961	7.711 185.71!	
188.792	12.467			9.864	8.724	7.956	7.700 190.77	
194.860	12.469			9.868	8.724	7.951	7.692 196.88	
201.317	12.470				8.725	7.948	7.685 203.39	
CATAOTI	<u> </u>				- /	•	-	

	MACH NO = 25.00	CONE ANGLE =	7.00	ANGLE OF	ATTACK =	1.00
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		P /	P FREE-S	TREAM AT	PLANE	ANGLES		
L/RN	0.	30 -	60•	90•	120 •	150 •	150.	SZRN
<b>-878</b>	50.826	50.349	49.064	47.357	45.704	44.527	44.099	1.449
1.115	47.628	47.190	46.013	44.445	42.924	41.840	41.448	1.687
1.467	42.964	42.576	41.535	40.148	38.810	37.861.	37.517	2.042
1.916	37.759	37.424	36.534	35.353	34.222	33.425	33.135	2.494
2.633	31.319	31.050	30.324	29.379	28.487	27.867	27.645	3.217
3.335	26.840	26.610	25.982	25.174	24.420	23.901	23.718	3.924
4.380	22.244	22.043	21.490	20.794	20.156	19.726	19.577	4.976
5.608	18.812	18.623	18.103	17.459	16.877	16.489	16.358	6.214
6.716	16.772	16.584	16.073	15.445	14.882	14, 510	14.384	7.331
8.244	14.894	14.704	14.189	13.561	13.003	12.637	12.514	8.869
9.565	13.797	13.601	13.074	12.438	11.874	11.506	11.383	10.201
11.323	12.796	12.590	12.040	11.381	10.803	10.428	10.303	11.972
13.178	12.104	11.884	11.302	10.61.	10.010	9.623	9.494	13.841
14.720	11.719	11.485	10.872	10.148	9.524	9.125	8.992	15.394
16.702	11.402	11.148	10.488	9.717	9.058	8.640	8.501	17.392
18.323	11.252	10.980	10.280	9.464	8.774	8.339	8.195	19.024
20.378	11.170	10.873	10.115	9.240	8.506	8.047	7.896	21.095
22.453	11.184	10.859	10.037	9.096	8.314	7-829	7.670	23.186
24.118	11.257	10.906	10.027	9.027	8.205	7.698	7.532	24.864
26.197	11.416	11.030	10.071	8.991	8.113	7.577	7.402	26.958
27.851	11.595	11.176	10.146	8 996	8.070	.7 • 50:8	7.326	28.624
29.900	11.876	11.414	10.287	9.040	8.048	7 • 45:3	7. 261	30.688
31.921	12216	11.706	10.473	9.120	8.057	7.426	7.223	32.725
33.515	12.524	11.975	10.651	9.208	8.083	7.421	7.209	34.331
35.475	12-948	12.347	10.906	9.343	8.137	7.434	7.211	36.306
37.016	13.313	12.669	11.131	9.469	8 • 195	7.458	7.224	37.858
38.907	13.794	13.097	11.436	9.646	8.284	7.502	7.255	39.764
40.760	14.295	13.546	11.762	9.841	8.388	7.560	7.299	41.630
42.215	14.705	13.916	12.034	10.008	8 • 481	7.614	7.343	43.096
44.002	15222	14.386	12.386	1:0 - 228	8.607	7.692	7.407	44.896
45.487	15 - 636	14.764	12.674	10.412	8.715	7.761	7.464	46.312
47.136	16.147	15.236	13.040	1-0.650	8.858	7 . 854	7.543	48.053
48.836	16.646	15.701	13.408	10.894	9.008	7 • 95 5	7.629	49.767
50.180	17.032	16.065	13,703	11.894	9.132	8.039	7.702	51.121
51.842	17-496	16.508	14.869	11.347	9.293	8 • 15 0	7.798	52.795
53.160	17.847	16.848	14.359	11.552	9.425	8 • 24-3	7.879	54.123
54.797	18.259	17.254	14.716	1:1.809	9.595	8.363	7.984	55.773
56.429	18-637	17.635	15.064	12.069	9.768	8 487	8.094	57.417
57.735 59.371	18 911	17.919	15.335	12.276	9.909	8.590	8 - 185	58.732
60.688	19.215 19.426	18.245	15.662	12.536	10.089	8.722	8.304	60.381
62.349	19.420	18.481 18.740	15.914 16.213	12.743 13.000	10.235	8.831 8.971	8 • 401 8 • 528	61.707 63.381
64.033	19.818	18.958	16.493	-	10.421	9.116	8.658	65.078
65.402	19.918	19.101		13.255 13.456		9.235		66.457
67.146	19.910		16.701	13.704	10.753	9.387	8.767	
014140	T ユ 🏺 ユゴル	19.237	16.938	134104	10.957	7 • 30™	8.906	68.214

MACH NO = 25.00 CONE ANGLE = 7.00 ANGLE OF ATTACK = 1.00

		P /	P FREE-S	TREAM /	AT PLANE	ANGLES		
L/RN	0.	30•	60.	90,	120.	150 •	180.	S/RN
68.573	20.025	19.313	17.107	13.898	11-114	9.513	9.022	69.652
70.403	20.021	19.365	17.290	14.133	11.313	9.674	9.171	71.496
71.907	19.987	19.375	17.412	14.314	11.472	9.806	9.294	73.011
73.839	19.914	19.351	17.529	14.529	11.672	9.974	9.452	74.957
75.839	19.812	19.290	17.607	14.729	11.871	10.146	9.615	76.973
77.492	19.715	19.220	17.640	14.875	12.028	10.286	9.748	78.638
73.615	19.583	19.112	17.648	15.037	12.220	10.461	9.917	80.777
81.366	19.472	19.015	17.628	15.148	12.369	10.601	10.054	82.540
83.628	19.334	18.885	17.576	15.261	12.548	10.777	10.226	84.820
85.978	19.200	18.752	17-498	15.344	12.717	10.950	10.400	87.187
87.906	19.100	18.649	17.423	15.388	12.842	11.085	10.536	89.130
90.384	18.988	18.528	17.4318	15.414	12.983	11.248	10.704	91.627
92.427	18.908	18.439	17.230	15.415	13.083	11.373	10.835	93.685
95.061	1-8 - 822	18.340	17.120	15.392	13.189	11.521	10.993	96.339
97.756	18.753	18.257	17.015	15.349	13.273	11.656	11.141	99.054
99.957	18.709	18.201	16.937	15.303	13.324	1-1.753	11.252	101.272
102.742	18.668	18.146	16.849	15.236	13.367	11.860	11.376	
104.990	18.644	18.112	16-789	15.180	13.386	11.933		106.342
107.812	18-624	18.081	16.724	15.108	13.393	12.007		109.185
110.651	18.613	18.060	16.672	15.038	13.383	12.065		112.046
112.940	18.610	18.049	16•:638	14.985	13.367	12.098		114.352
115.827	18.611	18.043	16.605	14.924	13.338	12.126		117.261
118.163	18.615	18.042	16.585	14.879	13.309	12.138		119.614
121,121	18.623	18.044	16.567	14.829	13.269	12.141		122.594
124.127	18.633	18.050	16.555	14.786	13.227	12.133		125.623
126.572	18-643	18.058	16.549	14.756	13.192	12.119	1.1.801	128.087
129.685	18.657	18.068	16.547	14.724	13.149	12.095	11.789	131.223
132.226	18-668	18.078	16.547	14.704	13.116	12.071	11.772	133.783
135.472	18.683	18.091	16.551	14.683	13.077	12.037	11.744	137.053
138.803	18.698	18.105	16.558	14,667	13.040	11.999	11.709	140.410
141.537	18.710	18.116	16.564	14.657	13.014	11.968	11.678	143.164
145.049	18.725	18.131	16.574	14.649	12.984	11.929	11.636	146.702
147.941	18.736	18.142	16.583	14.645	12.963	11.898	11.601	149.616
151.670	18.749	18.155	16.594	14.643	12.940	11.860	11.556	153.373
155.538	18.762	18.168	16.606	14.645	12.921	11.824	11.511	157.270
158.743	18.771	18.178	16.616	14.647	12.908	11.797	11.476	160.499
162.900	18.781	18.189	16. 628	14.652	12.896	11.766	11.434	164.688
166.359	18.787	18.197	16.638	14.658	12.888	11.744	11.401	168.173
170.866	18.795	18.206	16.649	14.666	12.882	11.719	11.364	172.713
175.596	1-8.801	18.213	16.660	14.675	12.878	11.699	11.331	177.479
179.559	18-805	18.218	16.667	14.683	12.878	11.685		181.471
184.757	18.808	18.223	16.676	14.693	12.879	11.671	11.281	186.708
189.130	18.810	18.226	16.681	14.701	12.882	11.663		191-114
194.893	18.812	18.228	16.688	14.710	12.887	11.656	11.245	196.920
201.019	18.812	18.229	16.692	14.719	12.894	11.652	11.232	203.093

1	MACH NO =	30.00	CONE ANG	LE = 7	00 ANG	LE OF AT	TACK =	1.00
		P /	P FREE-S	TREAM A	T PLANE	ANGLES		
L/RI	١ 0.	30,	60,	90.	120.	150 •	180.	SZRN
<b>C</b> 7 1/1	• • • • • • • • • • • • • • • • • • • •	00,	001	<b>50 •</b>	120	100	100	37711
.879	72.934	72.250	70.408	67.964	65.579	63.876	63.262	1.449
1.199		66.098	64.449	62.256	60.134	58.626	58.081	1.768
1.567		59.228	57.788	55.873	54.028	52.721	52.247	2.143
2.179		49.815	48.646	47.104	45.633	44.601	44.229	2.760
2.96	41.468	41.113	40.148	38.899	37.728	36.915	36.626	3.551
3.938	2 34.173	33.874	33.051	32.008	31.045	30.390	30.162	4.525
5.083	3 28.571	28.296	27.543	26.604	25.752	25.182	24.987	5.685
6.41	L 24.483	24.217	23.490	22.596	21.794	21.263	21.083	7.023
7.901		21.295	20.569	19.684	18.895	18.377	18.203	8.524
9.529		19.211	18.469	17.571	16.778	16.260	16.085	10.164
11.27	-	17.728	16.955	16.029	15.217	14.690	14.514	11.922
13.11		16.681	15.866	14.897	14.056	13.513	13.332	13.775
15.027		15.958	15.088	14.065	13.185	12,622	12.435	15.704
16.997		15.480	14.547	13.457	12.530	11.943	11.748	17.589
19.007		15.189	14.185	13.021	12.040	11.423	11.220	19.713
21.448		15.032	13.931	12.66R	11.616	10,960	10.745	22.173
23.491		15.031	13.839	12.484	11.366	10.676	10.450	24.232
25.529		15.134	13.838	12.379	11.191	10.464	10.227	26.285
27 • 55 :		15.330	13.916	12.342	11.076	10.309	10.060	28.321
29.546		15.612	14.066	12.363	11.012	10.202	9.940	30.332
31.510		15.972 16.401	14.281	12.436	10.990	10.134	9.859	32.310
33,43! 35,319			14.553	12.553	11.006	10.100	9-810	34.250
37.15		16.889 17.428	14.874 15.238	12.710 12.901	11.054 11.131	10.094	9•789 9•792	36.148 38.002
38.956		18.007	15.639	13.122	11.231	10.113	9.815	39.812
40-709		18.620	16.070	13.367	11.251	10.193	9.856	41.579
42.42		19.256	16.525	13.634	11.490	10.287	9.912	43.382
44.09:		19.909	17.001	13.918	11.643	10.375	9.981	44.986
45.729		20.570	17.491	14.218	11.810	10.475	10.062	46.632
47.32		21.234	17.992	14.530	11.988	10.585	10.153	48.244
49.203		22.023	18.502	14.918	12.214	10.729	10-274	50.137
50.74	- :	22.668	19.113	15.251	12.413	10.859	19.383	51.685
52.253		23.295	19.623	15.590	12.518		10.499	53.210
53.749		23.899	20.129	15.935	12.831	11.138	10.622	54.717
55.233		24.475	20.629	16.284	13.050	11.288	10.752	56.209
56.70	26.533	25.016	21.120	16.637	13.275	11.444	10.887	57.693
56-171	27.016	25.520	21.599	16.992	13.506	11.605	11.029	59.172
59.639		25.980	22.063	17.349	13.742	11.773	11-176	60.651
61.112		26.392	22.509	17.707	13.984	11.946	11.329	62.135
62.596		26.752	22.933	18.064	14.232	12.126	11-489	63.630
64.096	-	27.056	23.333	18.421	14.485	12.312	11.655	65.141
65.617		27.300	23.705	18.775	14.743	12.505	11.828	66.674
67.166		27.482	24.043	19.125	15.007	12.705	12.009	68.235
68.749		27.501	24.344	19.470	15.275	12.912	12.196	69.029
70.370	28.588	27.659	24.602	19.806	15.549	13.126	12.392	71.462

MA	CH NO =	30.00	CONE ANG	LE = 7	•00 ANG	LE OF ATT	LVČK =	1.00
		D /	P FREE-S	TOFAM	AT PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150 •	180.	SZRN
LIKN	0.	30 •	00•	90.	150.	190•	1004	37 / (1
72.369	28.482	27.550	24.849	20.194	15.881	13,392	12.636	73.476
74.085	28.344	27.583	24.999	20.500	16.160	13.620	12.849	75.206
75.856	28.170	27.469	25.096	20.786		13.856	13.069	76.990
77.673	27.973	27.318	25.139	21,046		14.095	13.294	78.820
79.537	27.761	27.139	25:131	21.276		14.338	13.525	80.698
81.456	27.545	26.942	25.076	21.472		14.582	13.761	82-631
83.438	27.330	26.735	24.981	21.631		14.829	14.001	84.629
85.484	27.125	26.527	24.851	21.749		15.075	14.244	86.690
87.574	26.937	26.329	24.699	21.826	-	15.315	14.485	88.795
89.715	26.768	26.143	24.531	21.860	18.192	15.550	14,724	90.953
91.917	26.621	25 • 975	24.357	21.857		15.776	14.959	93.171
94.188	26.496	25.825	24.182	21.817		15.993	15.189	95.460
96.512	26.395	25.698	24.014	21.749		16.196	15.409	97.801
98.876	26.317	25.595	23.859	21.658		16.381		100.182
101.285	26.259	25.513	23.718	21.551	18.836	16.548		102.610
104.230	26.214	25.442	23.574	21.411	18.881	16.719		105.577
106.705	26.194	25.403	23.475	21.292		16.836		108.070
109.200	25.186	25.379	23-394	21.175		16.929		110.584
111.706	26.187	25.366	23-331	21.055		16.999		113.108
114.225	26.195	25.364	23.284	20.963		17.047		115.646
116.752	26.209	25.370	23.249	20.871	18.738	17.074		118.202
119.322	26.227	25.380	23.227	20.789		17.082		120.782
121.909	26.247	25.395	23.214	20.717	-	17.074		123.388
124.529	26.269	25.413	23.209	20.656		17.051		126.028
127.186	26.293	25.433	23.210	20.605		17.016		128.705
129.885	26.317	2-5 • 455	23.216	20.563		16.971	15.572	131-424
132.631	26.341	25.477	23.227	20.530		16.919	16.533	134.191
135.429	26.366	25.500	23.241	20.506	18.260	16.860	16.483	137.010
138.286	26.390	25.524	23.257	20-488	18.201	16.798	16.426	139.888
141.206	26.413	25.547	23.274	20.477	18.149	16.734	16.362	142.831
144.804	26.440	25.574	23.297	20.471	18.093	16.657	16.280	146.455
147.886	26.460	25.595	23.317	20.471	18.053	16.593	16.208	149.561
151.054	26.478	25.616	23,338	20.475	18.019	15.531	16.136	152.752
154.314	26.496	25.635	23.358	20-483	17.991	16.473	16.064	15,6.037
157.675	26.511	25.652	23,378	20.493	17.969	16.418	15.993	159.423
161.145	26.523	25.667	23.397	20.505	17.952	16.367	15.925	162.920
164.736	26.534	25.680	23.416	20.519	17.940	16.321	15.861	166 • 537
168.457	26.542	25.691	23.433	20.534	17.932	16.281	15.800	170.286
172.320	26.549	25.700	23.449	20.551		16.246		174.178
176.339	26.554	25,707		20.567		16.217		178.228
180.529	26.557	25.712	23•475	20.584		16.194		182.448
184.905	26.559	25.716	23.485	20.600		16.176		186.857
189.484	26.560	25.718	23.494	20.516		16.164		191.471
194.288	26.560	25.719		20.632		16.157		196.311
200.379	26.559	25.718	23.504	20.648	17.979	16.155	15.538	202-448

	MACH	1 NO =	3.50	CO	NF	ANGL	=	:	8 • 0 9		ANGL	E OF	ATT	VCK =	1.00
			_	_											
		_		Р		EE-ST					LANE	ANG			
L/	ŚΝ	0.	30•		•	50 •		90	•	1	.20•	15	0 •	180	SZRN
•86	5.4	1.637	1.625		4 6	50.0	4	<b>5</b> /. (	<b>=</b>	4	500	4 1.0	c 0	4 456	. 4 1.74
9:		1.580	1.567								444		58	1.458	
- 91		1.621	1.608								482		12	1.401	
1.0		1.650	1.637										49	1.438	
1.2		1.549	1.636								511	1.4		1.467	
1.3		1.639	1-626								512		81	1.469	
1.5		1.625	1.613			593 580	4	24	() C				73		1.944
1.78		1.508	1.596			563	4	20			493 479	1.4			2 • 115
1,9		1.586	1.575			703 71.7	1 •	26	0				49	1.439	
2.10	. p	1.561	1.549			543 519	1.	フリ	?		461	1.4			2.517
2.42	ບຸດ <b>ງ</b> ່າ	1.533	1.522			.07	10	47			440	1.4		1.403	
	2.0 1.7	1.508	1.026						5	1.	418	1.39		1.383	
2.70	) ) n o	1.487	1.498					43	2	1.	397	1.3		1.364	
	7 O	1.469	1.477		1 • •	+48	1 4	41	<u>1</u> ~		377			1.345	
3.3	) Y	1.453	1.459		1 • •	+ 3 U	1.	39	ა •	l•	359	1.3		1.327	3.933
3.69					1 • 4	115	1.	37	8	1.	344	1.33		1.312	
	7 C	1.441	1-430		1 • 4	102	1.•	35	ე 	1.	332	1.3		1.300	
			1.421			93	1.	35	<i>(</i>	1.	323	1.3		1.292	
		1.424							Ü	1.	317	1.029		1.286	
									b •	1.	312		90		6.030
5.98													8 8		6.540
6 - 49		1.419							4	1.	310				7.082
7.02			1.411												7.656
7.68		1.426				885					315		32		8.265
7.91			1:-418			888					317		94		8.582
8.59		1.434				93					321		39		9.242
9.28			1:-429								327		14		9.938
10.0		1.447				105			7		333		LO	1.302	
10.77		1.453	1442								339	1.31		1.308	
11.5			1-449			18	1.	379			345		22	1.314	
12.41		1.467	1-456			124	1.	381	5		351	1.38		1.320	
13.29		1.474	1-462			130	1.	39			357	1.33		1.328	
14.2		1.480	1.468			36		39			362	1.33		1.332	
15.1		1.486	1-474			142		40		1.	368	1.34	+5	1.337	15.890
10.13	36	1.492	1.480		1 • 4	147									16.906
17.23		1.497	1-485			153		41			37-8	1.3		1.347	
18.33		1.502	1.490			57		41			382	1.35		1.352	
19.47		1.506	1.494		1.4		-	42			386	1.36		1.356	
20.67		1.510	1.498		1.4			420			390	1.39		1.359	
21.91		1.514	1-502			69		429			394	1.37		1.363	
232	-	1.518	1.506			73	-	43			397	1.37		1.366	
24.55	-	1.521	1.509		1.4			43			400	1.37		1.369	
25 - 95		1.524	1.512			79	-	439			403	1.3		1.371	
27 • 41	-	1.527	1.515		1.4			44:			405	1.38		1.374	
28-92		1.529	1.517			84		44			407	1.38		1.378	
30.45	38	1.531	1519		1.4	186	1.	44	5	1.	409	1.38	36	1.37-	31.360

MAC	CH NO =	3.50	CONE	ANGL	E =	8.00	P	INGLE	OF	ATT	ACK =	1.00
	_		P FRE		-		PLA		ANGL		4.00	0.401
L/RN	0.	30•	•	.0.	9(	•	120	•	150	•	180.	S/RN
31.308	1.533	1.520	1.4	+87	1.44	7	1.41	LO	1.38	37	1.379	32.177
32.973	1.535	1.522	1.4	+89	1.44	8	1.41	.2	1.38	38	1.381	33.858
34.701	1.536	1.524	1.4	491	1.45	0	1.41	4	1.39	9 0	1.382	35.604
36.495	1.538	1.526	1.4	492	1.45	2	1.41	15	1.39	31	1.383	37.416
38.357	1.540	1.527	1.4	+94	1.45	3	1.41	17	1.39	3	1.385	39.296
40.288	1.541	1.529	1.4	495	1.45	55	1.41	18	1.39	34	1.386	41.246
42-292	1.542	1.530	1.1	<b>497</b>	1.45	6	1.41	19	1.39	95	1.387	43.269
44.369		1.531	1.4	498	1.45	7	1.42	20	1.39	96	1.388	45.367
46.522	1.545	1.532	1.0	499	1.49	8	1.42	21	1.39	97	1.389	47.541
48.755	1.546	1.533	1.5	500	1 . 45	9	1.42	22	1.39	38	1.390	49.796
51-4068	1.547	1.534	1.9	501	1.48	50	1.42	23	1.39	99	1.395	52.132
53.466	1.547	1.535	1.	502	1.46	51	1.42	24	1.39	39	1.391	54.553
55.950	1.548	1.536	1.9	503	1.46	51	1.48	24	1.40	3 0	1.398	
58-524	1.549	1.537	1.5	503	1.46	52	1.42	25	1.40	1	1.393	
61.191	1.550	1.537		504	1.46		1.42	26	1.40	11	1.393	
63.954	1.550	1.538		505	1.46	53	1.46	26	1.40		1.39	
66815	1.551	1.539		505	1.46		1.4	27	1.4		1.394	
69.779	1.551	1.539		506	1.40		1.4		1.4		1.399	
72:•850	1.552	1.540		506		55	1.42	28	1.40	3	1.399	
76.031	1.552	1.540		5 <b>07</b>			1.4		1.4		1.391	
79.326	1.553	1.540		507	1.4		1.4		1.40		1.39	
82-740	-	1.541		507	1.40		1.4		1.4		1.39	
84.493	-	1.541		508		56	1.4		1.40		1.39	
88:•093	1.553	1.541	-	508		57	1.4		1.4		1.39	
91.824	1.554	1.541	_	508		57	1.4		1.4		1.39	
95.690	1.554	1.542	-	508	1.4		1.4		1.4		1.397	
99.697	1.554	1.542		509	1.4		1.4		1.4			7 101.238
103.850	1.554	1.542		509	1.4		1.4		1.40			105.432
108.156	1.554	1.542		509	1.4		1.4		1.4			109.780
112.620	1.555	1.542		509	1.4		1.4		1.4			3 114.288
117-249	1.555	1.543		509	1.4		1.4		1.4		1.39	118.963
122.049	1.555	1.543		509	1.4		1.4		1.4			23-811
127.028	1.555	1.543		510	1.4		1.4		1.4			3 128.838
	1.555			510				31				3 134.054
137.550	1.555	1.543		510	1.4		1.4		1.4			8 139.464
143.108	1.555	1.543		510	1.4		1.4		1-4			145.076
148.875	1.555	1.543		510	1.4		1.4		1.4			9 150 900
154.859	1.555	1.543		510	1.4		1.4		1.4			9 156-943
161.069	1.555	1.543		510 540	1.4		1.4		1.4			9 163.214
167-513	1.555	1.543		510 510	1.4		1.4		1.4			9 169.721
174. 201	1.556	1.543		510 510	1.4		1.4		1.4			9 176.475
181-143	1,556	1.543		510 510	1.4		1.4		1.4			9 183-485
188.348	1.556	1.544		510 510	1.4		1.4		1.4			9 190.761 9 198.312
195.826	1.556	1.544		510 514	1.4		1.4		1.4			9 195.312
203.589	1.556	1.544	1.0	511	1.4	ĎΆ	1.4	36	1.4	n t-	1.93	2 CODOTAT

## NSHC/HOL/TR 75-45

MAC	н но =	5.00	CONE ANGL	E = 8.01	ANGL	E OF ATT	ACK = 1	• 00
		5 (	P FREE-ST	DEAM AT	PLANE	ANGLES		
	•	30.	60.	90.	120.	150 •	180 •	S/RN
L/RN	0 •	34 •	80.	<b>50 6</b>	1200			
0.5.4	2.747	2.724	2.662	2.579	2.497	2.439	2.418	1.431
.861		2.669	2,607		2.442	2.384	2.363	1.541
-970	2.692 2.699	2.676	2.614	2.532	2.452	2.395	2.374	1.604
1.932		2.633	2.574	2.495	2.418	2.363	2.343	1.746
1.172	2.655 2.592	2.571	2.513	2.436	2.362	2.309	2.289	1.909
1.334	2.520	2.499	2.444	2.370	2.298	2.247	2.229	2.097
1.521		2.418	2.365	2.294	2.226	2.178	2.160	2.313
1.734	2.350	2.331	2.280	2.213	2.148	2.103	2.086	2.558
1.977	2.257	2.239	2.190	2.127	2.066	2.023	2.007	2.835
2.251	2.165	2.145	2.101	2.041	1.983	1.943	1.928	3.144
2.557	2.082	2.066	2.020	1.961	1,906	1.867	1.854	3.489
2.899	2.007	1.991	1.947	1.890	1.,836	1.798		3.869
3.275	1.942	1.926	1.882	1.826	1.773			4.282
3.684		1.871	1.827	1.771	1.719	1.684		4.730
4.127	1.886 1.841	1.825	1.781	1.725	1.674	1.638		5.212
4.604		1.789	1.745	1.688	1.636			5.729
5.117	1.805	1.762	1.716	1.659	1.607			6.282
5.665	1.778	1.742	1.596	1.637	1.584	1.548		6.872
6.249	1.759 1.747	1.729	1.682	1.622	1.568	1.531	1.518	7.499
6.869	1.740	1.722	1.673	1.612		·	1.507	8.163
7.527	1.739	1.720	1.670	1.608		1.512	1.499	8.866
8.223	1.742	1.723	1.671	1.607		1.509	1.496	9.608
8.958	1.748	1.729	1.675	1.610	1.55.0	1.510	1.496	10.390
9.732 10.548	1.758	1.738	1.683	1.615	1.554	1.513	1.499	11.214
11.406	1.770	1.749		1.623	1.561	1.519	1.505	12.080
	1.783	1.762	1.704	1.633	1.569	1.525	1.512	12.987
12.304 13.239	1.798	1.776		1.645	1.579	1.535	1.521	13.931
14.213	1.814	1.792		1.657	1.590	1.545	1.531	14.915
15.225	1.830	1.807		1.670	1.601	1.556	1.541	15.936
16.275	1.846	1.822			1.613	1.567	1.552	16.997
17.923	1.869	1.845		1.702	1.631	1.584	1.569	18.661
19.070	1.883	1.859		1.714	1.642	1.595	1.580	19.819
20.256	1.897	1.872		1.726	1.654	1.606		
21.482	1.909	1.885		1.737	1.664	1.616	1.600	22.255
22.747	1.921	1.896		1.748	1.674	1.626	1.610	23.533
24.053	1.932	1.907		1.758	1.684	1.635	1.619	24.852
25.400	1.942	1.917		1.767	1.692	1.643	1.627	26.212
26.788	1.951	1.926			1.700	1.651	1.635	27.613
28.218	1.960	1.934		1.783	1.708	1.658	1.642	29.057
29.690	1.968	1.942		1.790	1.715	1.665	1.649	30.544
31.205	1.975	1.949		1.797	1.721	1.671	1.655	32.074
32.763	1.981	1.955	_	1.803	1.727	1.677	1.660	33.647
34.366	1.987			1.808	1.732	1.682	1.665	35.266
36.013	1.992			1.813	1.737	1.687	1.670	36.929
37.706	1.997			1.818	1.741	1.691	1.674	38.639
5, 5, 50								

MA	CH NO =	5.00	CONE ANG	LE = 8.	00 ANG	LE OF AT	TACK =	1.00
		P /	P FREE-S	TREAM A	T PLANE	ANCLEO		
L/RN	0.	30.	60.	90.	120.	ANGLES		0.4511
				<b>70 •</b>	150.	150.	180.	SIRN
39.446	2.002	1.975	1.907	1.822	1.745	1.695	1.678	40 705
41.232	2.006	1.980	1.911	1.826	1.749	1.698	1.682	
43.067	5.009	1.984	1.915	1.829	1.752	1.702	1.685	
44,951	2.013	1.987	1.918	1.833	1.755	1.705	1.688	
46.885	2.016	1.990	1.922	1.836	1.758	1.708	1.691	
48.871	2.019	1.993	1.924	1.839	1.761	1.710	1:693	
50.909	2.022	1.996	1.927	1.841	1.764	1.712	1.695	
53.002	2.024	1.993	1.930	1.844	1.766	1.715	1.698	
55.150	2.026	2.000	1.932	1.846	1.768	1.717	1.700	
57.356	2.028	2.003	1.934	1.848	1.770	1.719	1.701	
59.622	2.030	2.004	1.936	1.850	1.772	1.720	1.703	
61.949	2.032	2.006	1.938	1.852	1.774	1.722	1.705	63.120
64.341	2.033	2.008	1.939	1.853	1.775	1.724	1.706	65.535
66.800	2.035	2.009	1.941	1.855	1.777	1.725	1.708	68.019
69.329	2.036	2.010	1 • 942	1.856	1.778	1.726	1.709	70.572
73.260	2.038	2.012	1.944	1.858	1.780	1.728	1.711	74.542
75.977 78.775	2.039	2.013	1.945	1.859	1.781	1.729	1.712	77.285
	2.039	2.014	1.946	1.860	1.782	1.730	1.713	80.111
81-∙657 84∙628	2.040	2.015	1.947	1.861	1.783	1.731	1.714	83.022
87 <u>.</u> 691	2.041	2.015	1.948	1.852	1.784	1.732	1.715	86.021
90÷847	2.041 2.042	2.016	1.949	1.863	1.785	1.733	1.715	
94-102	2.042	2.017	1.949	1.864	1.786	1.734	1.716	
97-461	2.042	2.017	1.950	1.864	1.786	1.734	1.717	
100-925	2.043	2.017 2.018	1.950	1.865	1.787	1.735	1.718	
104.500	2.043	2.018	1.951	1.865	1.788	1.736	1.718	102.479
108-189	2.043	2.018	1 <sub>•</sub> -951 1 <sub>•</sub> -951	1.866	1.788	1.736	1.719	106.089
111-995	2.044	2.019	1.951	1.856	1.789	1.737	1.719	109.814
115.924	2.044	2.019	1.952	1.867 1.867	1.789	1.737	1.720	113.658
		2.019	1.952	1.867	1.78.9	1.738		117.625
124-163		2.020	1.953	1.868	1.790	1.738		121.719
128.483		2.020	1.953	1.868	1.790 1.790	1.738		125.946
132-942	2.045	2.020	1.953	1.868	1.790	1.739		130.308
137.545	2.045	2.020	1.953	1.868	1.791	1.739		134.811
142.297	2.045	2.020	1.954	1.869	1.791	1.739		139.459
147-203	2.045	2.020	1.954	1.869	1.791	1.739		144.258
152-267	2.046	2.021	1-954	1.869	1.791	1.739 1.740		149.211
157-496	2.046	2.021	1-954	1.869	1.792	1.740		154.326
162-895	2.046	2.021	1.954	1.869	1.792	1.748		159.606 165.057
168.468	2.046	2.021	1.954	1.870	1.792	1.740		1-7-0 • 686
174.223	2.046	2.021	1.955	1.870	1.792	1.740	1-722	176.497
180-166	2.046	2.021	1-955	1-870	1.792	1.740		182.498
186.301	2.046	2.021	1.955	1.870	1.792	1.740		1.88.694
192.637	2.046	2.021	1.955	1.870	1.793	1.741		195.092
202.530	2.046	2.021	1.955	1.870	1.793	1.741		205.082

, M <i>A</i>	CH NO =	10.00	CONE	ANGL	E =	8 - 00	ANGLE	OF	ATTACK	= 1.00	
		D 4	ח-בם	EE-ST	DEAM	AT	PLANE	ANGL	FS		
1 /DN	0 •	30.		60.		).	120 •	150		O. S/RN	
L/RN	0 •	30 •		0 U •	31	J •	1200	100	20	<b></b>	
.851	9-220	9.136	8.	911	8.63	12	8.322	8.11	4 8.0	39 1,431	
•961	8.939	8.857		635	8.34		8.054	7.85			
1.097	8.719	8.641		432	8.19		7.382	7.68			
1.349	8.174	8.101		907	7.64		7.397	7.21		55 1.924	
1.542	7774	7.706		523	7.2		7.045	6.87		18 2.119	
1.878	7.139	7.077		912	6,6		6.481	6.33		78 2.458	
2.270	6.499	6.443		294	6.09		5.911	5.78	5.7	33 2.854	
2.564	5.100	6.048		906	5.72	22	5.548	5 - 42			
3.054	5.552	5.504	-5∙	374	5.2	05	5.046	4.93			
3.604	5.070	5.025	4.	902	4.7	44	4.597	4.49			
4.006	4.791	4.747	4.	626	4.4		4.331	4 • 23			
4.659	4.434	4.391	4.	272	4.13		3.985	3.89			
5.371	4.146	4.103		984	3.8		3.699	3.60			
5.879	3.989	3.945		825	उ∙61		3.539	3.44			
6,686	3.796	3.751		628	3.4		3.338	3.24			
7.546	3.649	3.602		476	3.3		3.178	3.08			
8-147	3.572	3.524		394	3.2		3.991	2.99		-	
9.087	3.484	3.434		299	3.1		2.984	2.88		-	
10.070	3-424	3.371		229	3.0		2.902	2.79		65 18.731	
11.094	3.388	3.332		183	3.0		2.840	2.73			
11.797	3.375	3.317		162	2.9		2.809	2.69		662 12.475 621 13.570	
12.881	3.371	3.309		146	2.9		2.774	2.63			
13.998	3.383	3.317		144	2.9		2.753 2.745	2.62			
14.761	3.398	3.330		150 169	2.9		2.741	2.61			
15.929	3.432	3,359 3,398		197	2.9		2.746	2.61			
17.126	3.475 3.509	3.429		220	2.9		2.754	2.61	_		
17.939 19.181	3.567	3.481		262	2.9		2.770	2.68			
20.450	3.630	3.540		309	3.0		2.793	2.63			
21.311	3.675	3.582		344	3.0		2.811	2.65			
22.623	3.745	3.648		399	3.1		2.842	2.57			
23.961	3.818	3.717		457	3.1		2.876	2.70	-	646 24.758	
24-867	3.868	3.764		497	3.1		2.900	2.77	-		
26.248	3.942	3.835		559	3.2		2.939	2.79	55 2.6	93 27.068	
27.655	4.016	3.905		620	3.2		2.979	2.78	89 2.7	25 28.489	
28.608	4.064	3.951		661	3.3		3.006	2 . 81	L2 2.7	747 29.451	
30.058	4.135	4.019	3.	722	3.3	61	3.048	2.84	48 2.7		
31.535	4.203	4.085	3.	781	3.4	12	3.090	2 • 88			
33.038	4:• 267			839	3.4		3.132	2.98			
34.056	4308	4.187		875	3.4		3.160	2.94			
35.604	4.366			928	3.5		3.201	2.9			
3.7181	4.420			978	3.5		3.24.0	3.0			
38.249	4.454			.010	3.6		3.265	3.04			
39.876	4.502			055	3.6		3.303	3 - 07	_		
41.537	4.547	4.422	4.	098	3.6	94	3.338	3.1	08 3.0	032 42.507	

М	ACH NO =	10.00	CONE AND	SLE = 8	• 00 ANG	LE OF AT	TACK =	1.00
	_		P FREE-S					
L/RN	0.	30.	60.	90•	120•	150.	180.	S/RN
42.664	4.574	4.449	4.124	3.719	3.361	3.129	3.052	43.645
44.387		4.488				3.160	3.082	
45.156		4.524				3.189	3.111	47.171
47.363				3.809		3.208	3.129	48.390
49.220		4.576		3.839		3.235	3.156	50.265
51-141		4.604		3.867		3.260	3.181	52.205
52.461			4.298	3.885		3.276	3.197	53.538
54.506		4.641	4.323	3.911		3.300	3.220	55.604
56.639		4.659		3.935		3.322	3.243	57.758
58.869		4.672	4.365	3.958		3.343	3.264	
60.415			4.376			3.357	3.277	
62.829						3.376	3.296	
65.368						3.395	3.315	66.572
67.136							3.327	
69,909							3.343	
72.837							3.359	
74.855		4.675					3.369	
77.967		4.673					3.382	
81.185		4.670					3.394	
83.392		4.669				3.481	3.402	
86.800		4.667					3.412	
90.329			_				3.420	
92.752		4.665					3.425	
96 • 496		4.664					3.431	
100.378								101.926
103.045								104.619
107.168		4.661	_					108.783
111.443				4.051		3.511		1-13-100
115.877						3.511		117.577
118.923						3.510		120.654
123.634			4.393			3.510		125.411
128.518			4.392	4.059				130.343
131.875			4.392	4.050		3.510		133.733
					3.730			138.973
142.446		4.659	4.392	4.050		3.510		144.408
146.144		4.659	4.392	4.049		3.510		148.142
151.861		4.659	4.392	4.049		3.511		153.915
157.789		4.660	4.392	4.049		3.511		159.902
161.863		4.660	4.392	4.049		3.511		164.016
168.162		4.661	4.393	4.049		3.511		170.377
174.694		4.661	4.393	4.049		3.512		176.973
179.183		4.661	4.393	4.049		3.512		181.505
186 - 122		4.662	4-393			3.512		188.514
193.319		4.662	4.394	4.050		3.512		195.781
200.783		4.662	4.394	4.050		3.512		203.318

	MACH NO =	15.00	CONE ANG	LE = 8.	00 ANGL	LE OF AT	TACK =	1.00
					- 54 4415	41101.50		
					T PLANE			CADN
L/R	N 9.	30•	60•	90•	120.	150 •	180.	SZRN
•86	1 19.999	19.815	19.321	18.663	18.025	17.567	17.402	1.431
1.02		19.006		17.904	17.292	16.856	16.698	1.592
1.25				16.806	16.245	15.846		1.826
1.52		16.478		15.554	15.045	14.685		2.105
1.97				13.764		13.020	12.909	2.560
2.37				12.441	12.056	11.787	1-1 - 690	2.964
3.00	_	11.474		10.844		10.278	10.195	3.592
3.53				9.791		9.277		4.130
4.33		9.149		8.602		8.130		4.939
5.00		8.409			7.603	7.419		5.611
5.97		7.630			€.€330	6.651	6.590	6.592
6.75		7.176	6.936	6.638		6.190	6.129	7.385
7 - 87		6.711	6.463	6.157		5.701	5.639	8.513
9.06		6.372	6.113	5.796		5.325	5.263	9.711
9.99		6.184	5.915	5.587	5.296	5.104	5.039	10.650
11.27		6.005	5.720	5.374		4.869	4.802	11.947
12.26			5.616	5.255		4.731		12.949
13.62	3 5.969	5.845	5.524	5.140	4.805	4.588	4.515	14.319
14.65	2 5.955	5.324	5.486	5.082	4.732	4.596	4.430	15.368
16.05	9 5.972	5.831	5.467	5.035	4.663	4.424	4.344	16.789
17.13	9 6.008	5.858		5.020	4 • 630	4.381	4.298	17.869
18.58	0 6.082	5.921	5.508	5.021	4.607	4.343	4.256	19.324
19.66	9 6.155	5.984				4.328	4.236	20.425
21.13					4.613			
	9 6.374				4.630			
23.69	7 6.526							
25.16					4 • 7 n ጻ			25.975
26.26					4.748			
27.72					4.809			
28.82					4 • 859			
30.27				5.589		4.527		
31.35		7.214		5.671		4.569		
32.80		7.39%		5.785	5.069	4.630	4 • 487	
33.87			6.768		-		4.531	
35.30		7.714	6.921	5.989	5 • 217	4.745	4.591	36.216
36.37		7.845	7.034	6.077	5-28.3	4.797	4.639	37.297
37.80		8.014	7.182	6.195	5372	4 • 86 8	4.704	38.737
38.87		8.136	7 • 291	6.282	5.440	4.923	4.754	39.816
4029		8.292	7 • 432	6.398	5.•530	4.996	4.822	41.256
41.73		8.438	7.568	6.512	5.620	5.071	4.891	42.702
42,80		8.542	- <b>7</b> -• 666	6.595	5.687	5.127	4.944	43.792
44.26	<u> </u>	8.671	7.791	6.704	5777	5 + 20 2	5 - 014	45.256
45.35		8.760	7.880	6.784	5 - 843	5.259	5.068	46.366
46.84		8.869	7.994	6.888	5.931	5.334	5.139	47.864
47.97	2 9.266	8.942	8.074	6.963	<b>5.</b> 996	5.391	5.193	49.005

MACI	. NO	15.00 C	ONE ANGLE	= 8.01	ANGL	E OF ATT	ACK = 1	. • 0 0
MAU	4 NO -					11161 50		
		P / P	FREE-ST		PLANE	ANGLES	4 9 0	S/RN
L/RN	0.	30•	60.	90•	120•	150•	180.	57 KII
	0.742	9.028	8.173	7.061	6.081	5.466	5.264	50.554
49.506	9.342		8.242	7.131	6.144	5.522	5.318	51.740
50.680	9.388	9.083	8.325	7.221	6.226	5.597	5.390	53.359
52.283	9.436	9.143	8.381	7.286	6.287	5.652	5 • 443	54.604
53.517	9.460	9.178	8.445	7.367	6.366	5.725	5.514	56.314
55.209	9.479	9.211	8.485	7.424	6.424	5.780	5,567	57.636
56.519	9.483	9.226	8.527	7.495	6.498	5.851	5.637	59.460
58.325	9.478	9.233	8.556	7.557	6.570	5.921	5.707	61.359
60.206	9.462	9.228	8.569	7.599	6.621	5.972	5.758	62.837
61.669	9.445	9.218	8.575	7.646	6.686	6.039	5.824	64.886
63.698	9.418	9.197	8.572	7.674	6.731	6.087	5.873	66.485
65.282	9.396	9+178		7.702	6.786	6.148	5 , 936	68.702
67 • 477	9.365	9.151	8.561	7.716	6.823	6.192	5.981	70.435
69.193	9.342	9.129	8.548	7.726	6.865	6.246	6.038	72.832
71.567	9.313	9.101	8.527	7.726	6.891	6.283	6.078	74.699
73.416	9.293	9.080	8.510	7.721	6.919	6.327	6.127	77.266
75.958	9.269	9.055	8.486	7.713	6.933	6.355	6.159	79.233
77.905	9.253	9.039	8.469	7•713 7•699	6.945	6.387	6.196	81.905
80.551	9.235	9.019	8.449	7.688	6.949	6.406	6.220	83.951
82.578	9-224	9.007	8.434	7.672	6.949	6.424	6.245	86.744
85.343	9.211	8.993	8.417		6.944	6.436	6.264	89.620
88.192	9.202	8.982	8 • 40 2	7•657 7•647	6.938	6.441	6.273	91.840
90.389	9.196	8.975	8.393		6.929	6.442	6.280	94.891
93.411	9.190	8.967	8.382	7.633	6.921	6.440	5.281	97.256
95.753	9.187	8.963	8.375	7.624 7.613	6.910	6.434	6.279	100-522
98.987	9.185	8.959	8.367	7.606	5.902	6.428	6.274	103.064
101.585	9.184		8.362	7.598	6.892	6.418	6.266	106.592
104.999	9.185	8.956	8 - 357	7.592	6.886	6.410	6.258	109.352
107.731	9.185	8.956	8 • 355	7.586	6.877	6.400	6.247	113-198
111.540	9.189		8 - 352	7.583	6.872	6.393		116-220
114.532	9.191		8 • 35 2	7.579	6.855	6.384		120 - 452
118.723	9.194		8 - 352	7.576	6.862	6.377	6.219	123.792
122.031	9.197	_	8.353		6.857	6.370		128.492
126.685	9.201		8.355	7.574	6.853	6.364	6.202	133.502
131.646	9.204		8.357	7.574	6.851	5.360		137.484
135.590	9.207		8.359	7.574	6.849	6.356		143.123
141.174	9.210		8.362	7.575	6.848	6.353	6.186	147.623
145.630	9.212		8.364	7.576	6.848	6.351		154.020
151.964	9-214		8 • 367	7.578	6.848	6.350		159.140
157.035	9.216		8 • 368	7.580	6.849	6.348	6.177	
164.192	9.218		8 • 37.1	7.582	6.850	6.348	6.176	
169.766,			8 • 37-2	7.584	6.853	6.349	6.175	
177.475	9.221		8 • 374	7.586 7.587	6.855	6-350	6.176	
183.474	9.222		8.375	7.589	6.857	6.352	6.176	
191.774	9.223		8.377		6.859	6. 35 4		202-962
200.430	9.223	8.991	8.378	7.590	0 • 00 9	0.007	542,5	

MACH NO = 20.00 CONE ANGLE = 8.00 ANGLE CF ATTACK = P / P FREE-STREAM AT PLANE ANGLES L/RN 0. 90. 120. 150. 180. S/RN 30. 60. 35.089 34.764 30.801 30.510 1.431 .851 33.892 32.731 31.608 32.961 31.856 30.782 29.740 28.998 28.729 1.089 32.662 1.662 1.335 39.678 30.401 29.657 28.667 27.710 27.030 26.784 1.910 26.438 25.579 2.430 1.850 26.204 24.751 23.957 23.397 23.194 23.044 22.844 21.599 20.928 20.459 20.290 2.951 2.366 22.306 2.980 20.026 19.850 19.373 18.757 18.177 17.775 17.632 3.571 15.258 14.798 3.889 16.877 16.722 16.298 15.758 14.917 4.489 4.728 14.912 14.763 13.065 12.956 5.336 14.358 13.848 13.380 5.907 13.076 12.923 12.523 11.574 11.272 11.169 6.527 12.025 6.945 11.994 11.439 10.938 10.487 10.186 10.084 7.575 11.844 9.056 11.190 11.634 10.617 10.105 9.647 9.343 9.240 8.697 9.336 10.475 8,549 8.443 9.530 13.310 9.871 8.861 10.186 16.081 12.766 9.907 9.445 8.886 8.392 8.069 7.960 11.433 9.761 9.571 9.074 8.477 7.955 7.616 7.501 13.049 12.366 13.680 9.613 9.409 8.879 8.246 7.698 7-.343 7.224 14.377 9.542 7.505 7.133 7.008 15,727 15.018 9.323 8.756 8.084 6.940 6.808 9.541 9.301 8.684 7.957 7.336 17.438 16.712 9.598 9.339 7.905 7.248 6.832 6.693 18.817 18.877 8.679 7.184 19.789 9.729 9.445 8.727 7.890 6.740 6.593 20.545 21.156 9:877 9.571 8.802 7.910 7.164 6.697 6.542 21.925 23.701 22.517 10.059 9.729 8.905 7.955 7.166 6.674 6.512 6.499 25.084 24.204 969 9.069 7.194 10.331 8.041 6.671 25.539 10.580 10.190 9.227 8.131 7.236 6.686 6.505 26.352 6.530 27.185 18.925 10.499 9.452 8.267 7.307 6.722 28.314 11.223 28.483 10.768 9.651 8.392 7.377 6.763 6.563 29.325 29.762 6.604 11.536 11.052 9.865 8.529 7.458 6.813 30.616 31.335 11--943 11.422 10.149 8.716 7.573 6.888 6.667 32.205 6.725 32.573 12.275 11.727 10.387 8.876 7.674 6.956 33.455 34.095 12.693 12.114 10.693 9.086 7.809 7.050 6.806 34.992 35.295 6.877 36.204 13.026 12.424 7.924 7.132 10.942 9.260 6.953 36.480 13.353 12.731 11.193 9.439 8.044 7.218 37.401 13.751 7.332 7.054 37.944 13.107 11.507 9.667 8.200 38.378 39.102 14.357 11.756 7.427 7.139 13.400 9.852 8.328 40.748 7.227 40.252 10.038 7.526 41.209 14.350 13.683 12.002 8.460 41.680 14.694 14.820 12.303 10.271 8.627 7.653 7.341 42.652 42.819 14.948 14.274 12.537 16.457 8.763 7.758 7.436 43.802 44.242 15.238 14.569 8.936 7.892 7.558 45.239 12.820 10.689 45.383 15.446 14.785 13.037 9.075 8.002 7.658 46.391 10.872 46.530 15.630 14.983 13.244 11.853 9.216 8.114 7.760 47.549 47.976 15.826 8.256 7.891 15,200 13.487 11.276 9.392 49.010

11.450

11.661

11.825

11.982

12.169

9.534

9.712

9.854

9.995

10.171

8.372

8.520

8.640

8.761

8.915

7.999

8.136

8.248

8.362

8.507

50.192

51,593

52.916

54.164

55.763

49.147

50.633

51.845

53.080

54.664

15.954

16.077

16.146

16.191

16.214

15.350

15.504

15.601

15.674

15.732

13.668

13.875

14.023

14.155

14.294

MΛ	CH NO =	20.00	CONE A	NGLE =	8.00	ANGLE	OF ATT	ACK =	1.00
		p /	D EDEE	-STREAM	AT P	LANE	ANGLES		
L/RN	0.	30.	60			20.	150.	180.	SZRN
27 (14	•	04.	00	•		20.	1700	100.	237 (234
55.967	16.208	15.753	14.38	5 12.30	9 10.	310	9.039	8.625	57.279
57.647	16.175	15.750	1-4.46				9.195	8.775	58.775
59.034	16.131	15.728	14.51				9.320	8.896	60.176
67.464	16.675	15.690	14.53		-		9.445	9.017	61.621
52.313	15.992	15.625	14.54	4 12.79	38 10.	896	9.600	9.169	63,488
63.841	15.919	15.563	14.52	9 12.88	57 11.	010	9.720	9.290	65.331
65.821	15.826	15.477					9.867	9.438	67.930
67.461	15.752	15.406	14.44				9.979	9.553	68.686
69.144	15.681	15.336	14.39				0.085	9.664	70.385
71.315	15.600	15.252	14.32				0.208	9.796	72.578
73.111	15.543	15.190	14.26				0.297	9.894	74.392
75.412	1-5.48-1	15.17	14.18				0.395	10.005	76.715
77.30.0	15.440	15.075	14.13				0.461	10.084	78.621
79.217	15.407	15.035 14.995	14.08 14.02				0.516	10.153	80.558 83.116
8 <u>1</u> .65 <u>1</u> 83.624	15.374 15.356	14.970	13.98				0.569 0.599	10.224	85.008
85.624	15.342	14.951	13.95				0.618	10.303	87.227
83.166	15.331	14.934					0.629	10.331	89.594
90.239	15.327	14.925	13.89				0.629	18.344	91.588
92.888	15.326	14.919					0.618	10.348	94.363
95.058	15.327	14.918	13.85				0.603	10.342	96.554
97.279	15.331	14.919					0.584	10.330	98.797
100.135	15.338	14.923					0.554	10.308	
102.491	15.345	14.928	13.84				0.528	10.286	104.860
105.535	15.355	14.936	13.84	0 12.47	7-9 11.	275 1	G . 494	10.253	107.134
108.057	15.363	14.943	13.84	2 12.46	59 11.	252 1	0.466	10.225	109.681
110.666	15.372	14,951					0.439		112.316
114.061	15.384	14.962					0.406	10.159	
116.895	15.393	14.971		_			0.381	10.130	
120.603	15.484	14.982					0.353		122.350
123.714	15.413	14.990	13.87				8.333	1-0.07-0	
126.968	15.420	14.998	13.88			-	0.315	10.046	
131.258	15.429	15.008	13.89	-			0.296		133.110
134.886 139.693	15.435 15.441	15.014 15.021	13.90 13.90				.0 • 284 .0 • 273		136.773 141.628
143.779	15.445	15.026	13.91				0.267	9.97.1	
148.100	15.448	15.030	13.92				0.263		150.118
153.868	15.451	15.034	13.92				0.261	_	155.942
158.803	15.452	15.036	13.93				0.261		160.925
165.417	15.453	15.037	13.93				0.265		167.605
171.101	15.453	15.037	13.93				0.269		173.345
177.169	15.453	15.037					0 • 27-5	9.955	179.472
485 346	45 452	15 077	47 07			204 1	-n . 5 à 4	0 062	147 750

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MACH NO = 25.00CONE ANGLE = 8.00 ANGLE OF ATTACK = 1.00 P / P FREE-STREAM AT PLANE ANGLES L/RN 30 . 90. S/RN 0. 60. 120. 150. 180. .861 54.493 53.990 52.634 50.822 49.064 47 - 811 47.360 1.431 49.984 1.165 49.528 48.305 46.677 45.102 43.982 43.577 1.739 1.521 44.968 44.565 43,485 42.050 40.666 39.683 2.098 39.327 38,250 37.910 2.091 37.012 35.822 34.684 33.885 33.595 2.673 29.990 2.809 32.016 31.735 30.976 29.061 28.416 28-185 3.398 3.681 26.855 26.612 25.948 25.100 24.313 23.773 4.279 23.584 19.878 4.707 22,872 22.645 22.024 21.243 20.528 20.045 5.315 19.953 5.877 19.738 19.129 18.371 17.684 17-225 17-067 6.497 7.174 17.895 17.666 17.047 16.285 15.599 15.144 14.988 7.806 8.577 16.448 16.208 15.566 14.781 14.081 13.618 13.461 9.223 15.453 10.065 15.198 14.521 13.699 12-973 12.496 12.334 10.726 12.925 11-619 14.793 14.518 13.795 11.497 11.565 12.162 12.295 13.221 14.385 14.087 13.308 12.378 11.571 11.048 10.873 13.913 14.857 14.173 13.847 13.004 12.004 10.593 11.144 10.408 15.565 14.110 16.513 13.753 12.839 11.753 10.844 10.259 10.064 17.237 14.164 13.774 18.178 12.783 11.623 10.541 10.020 9.014 18.918 19.840 14.316 13.889 12.813 11.563 10.514 9.855 9.637 20.597 21.491 14.554 14.086 12.915 11.568 10.447 9.748 9.517 22.264 23.124 14.871 14.357 13.081 11.626 10.428 9.687 9.443 23.913 24.4.730 15.262 14.597 13.305 11.731 10.449 9.653 9.495 25.535 26.307 15.718 15.097 13.579 11.876 10.504 9.671 9.399 27.128 27.851 16.229 13.899 12.058 15.550 10.589 9.705 9.417 28.686 15.786 29.360 16.048 14.257 12.271 10.700 9.762 9.458 30.210 16.581 30-833 17.379 14.649 12.511 10.833 9.838 9.517 31.698 32-271 17.996 17.139 15.066 12.775 10.985 9.931 9.593 33.150 17.716 33.677 18.629 15.504 13.058 11.154 10.039 9.683 34.570 35.051 19.257 18.302 15.958 13.357 9.785 11.338 10.160 35.957 36.396 19.901 18.890 16.421 13.669 11.533 10.293 9.898 37.316 19.473 37.716 20.524 16.890 13.991 11.739 10-435 10.021 38.648 20.044 39.013 21.128 17.361 14.321 11.955 10.586 10.153 39.958 40.545 21.817 20.706 17-922 14.725 12.224 10.778 10.320 41.506 41.806 22.353 21.231 18-382 15.066 12.455 18.945 10.468 42.778 43.055 22.850 21.726 18.833 15.418 12.692 11.119 10.622 44.040 44.298 23.302 22.186 19.270 15.754 12.935 11.299 19.783 45.295 45.538 23.7-05 22.608 19.69 C 16.097 13.183 11.485 10.949 46.548 24.055 46.780 22.987 20.091 16.439 13.434 11-677 11-121 47 - 801 16.777 48-027 24.349 23.320 20.468 13.690 11.874 11.299 49.061 49.284 24.587 23.604 20.820 17.109 13.949 12.077 11.483 50.330 50.556 24.756 23.836 21.141 17:435 14.211 12.285 11.674 51.615 24.889 51.848 24.017 21.430 17.752 14.475 12.499 11.870 52.920 53.165 24.958 24.144 21-683 18.057 14.741 12.718 12.072 54.249 24.974 54.512 24.220 21.896 18.349 15.008 12.943 12.281 55.609 55.894 24.944 24.246 22.068 18.624 15.275 13.172 12.496 57.005

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24.226

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CONE ANGLE = 8.00 ANGLE OF ATTACK = 1.00 MACH NO = 25.00P / P FREE-STREAM PLANE ANGLES AT L/RN 90. 120. 150. 180. SZRN 0. 30. 60. 60.281 22.317 19.313 16.050 13.881 13.170 61.435 24.628 24.068 19.484 16.292 14.118 13-401 61.828 24.474 23.943 22.314 62.998 63.421 23.799 22.272 19.622 16.528 14.353 13.632 24.309 64.606 65.066 24.141 23.642 22.198 19.723 16.732 14.584 13.863 66.268 14.090 66.761 23.977 23.481 22.096 19.788 16.924 14.807 67.979 68.497 21.975 19.817 17.093 15.019 14.310 69.732 23.825 23.325 70.280 23.685 23.177 21.842 19.813 17.236 15.219 14.521 71.532 15.403 72.118 23.562 23.041 21.704 19.778 17.352 14.721 73.388 17.439 15.569 14.907 74.005 23.457 22.921 21.567 19.719 75.294 15.075 75.927 23,371 22.819 21.438 19.641 17.497 15.713 77.235 77.892 23.304 22.735 21.319 19.548 17.527 15.834 15.224 79.220 17.532 79.898 23.253 22.668 21.213 19.448 15.932 15.352 81.246 81.929 23.218 22.618 21.122 19:347 17.515 16.005 15.457 83.296 83.989 22.582 21.046 19.247 17.480 1-6-054 15.538 23.195 85.376 17.430 16.080 15.596 86.071 23.183 22.559 20.985 19.152 87.479 22.545 88.604 20.930 19.049 17.356 16.086 15.638 90.037 23.181 16.072 90.749 23.185 22.541 20.897 18.973 17.288 15.651 92.203 18.906 16.042 15.645 92.931 23.194 22.544 20.874 17.217 94.406 15.624 95.154 23.207 22.552 20.861 18.849 17.145 16.001 96.651 97.425 23.223 22.564 20.854 18.802 17.074 15.950 15.590 98.944 15.892 99.748 23.241 22.578 20.853 18.763 17.007 15.544 101.290 22.595 16.945 15.829 15.490 103.695 102.129 23.261 20 - 857 18.734 15.764 23.281 22.614 20.866 18.712 16.887 15.429 106.166 104.576 15.699 107.095 23.303 22.633 20.877 18.697 16.836 15.364 108.709 16.792 15.634 15.296 111.332 109.692 23.324 22.654 20.891 18.688 22.674 20.907 16.754 15.572 15.228 114.044 112.377 23.345 18.685 115.158 23.364 22.694 20.924 18.686 16.723 15.514 15.161 116.852 118 -045 23.383 22.714 20.942 18.692 16.698 15-460 15.097 119.767 23.400 20.961 16.680 15.412 15.036 122.799 121.047 22.732 18.700 23.415 22.749 20.979 16.668 15.370 14.980 125.960 124.178 18.711 23,428 15.334 14.929 129.264 22.764 20.997 18.724 16.660 127.449 15.305 130.875 23.439 22.777 21.015 18.739 16.658 14.885 132.723 23.448 16.660 22.788 18.755 15.282 14.847 136.356 134.473 21.031 138.258 23.455 22.797 18.771 16.666 15.265 14.817 140.179 21.045 15.255 14.793 144.212 142.252 23.450 22.803 21.057 18.788 16.675 15.250 14.776 148.477 146.476 23.463 22.808 21.067 18.804 16.687 23.465 22.811 21.075 18.820 16.700 15.251 14.765 152.999 150.953 15.256 23.466 22.812 21.081 18.834 16.715 14.761 157.803 155.711 23.465 22.813 21.085 18.846 16.731 15 - 265 14.762 162.920 160.778 23.464 21.087 15-277 14.768 168.383 166.188 22.812 18.856 16.748 171.976 23.461 22.810 21.088 18.865 16.764 15.292 14.778 174.228 14.792 180.496 15,309 178.183 23.458 22.807 21.087 18.871 16.779 184.852 23.455 22.804 21.086 18.875 16.793 15.328 14.809 187.231 18.877 23.452 22.801 21.083 16.805 15.346 14.827 194.483 192.034

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МД	CH NO =	30.00	CONE ANG	LE = 8	.00 ANG	LE OF A	TTACK =	1.00
			P FREE-S		AT PLANE			
LIRN	0 •	30 •	60.	98-	120.	150.	180.	SZRN
054	70 040	77 / 0/	75 500	70 000	70 100			
.861	78.210	77.48.4	75.529	72.928	70.408	68.614	67.969	
1.165	71.695	71,042	69.285	66-948		63.075	62.493	1.738
1.520	64.459	53.880	62.331	60.269		56.872	56.361	2.096
2.219	52.851	52.388	51.149	49.515		46.868	46.474	2.803
2.965	44.187	43.798	42.745	41.381	40.099	39-211	38.894	3.556
4.064	35.854	35.519	34.603	33.442		31.641	31.387	4.666
5.145	30.753	36.433	29.561	28.469		26.805	26.574	5.758
6.621	26.455	26 • 144	25.275	24.200		22.585	22.365	7 • 248
7.976	24.028	23.695	22.803	21.788		2.0 - 080	19.859	8.616
9.721 11.251	22.056 20.984	21.700	20.757	19.610	18.594	17.927		10.379
		20.603	19.599	18.390		16.635	16.402	11.923
13.150	20.194 19.844	19.774	18.680	17.375		15.510	15.264	1-3 - 841
14.768	19.599	19.387	18.205	16.806		14.831		15 - 475
16.732 18.373	19.753	19.192	17.893	16.368		14.243		17.458
		19.200	17.795	16.156		13.897		19.115
20 • 332 21 • 945	19.992	19.377	1.7 + 829	16-041		13.611	13.301	21.094
23.848	20.321	19.646	17.964	16.039		13.457		22.723
25.400	21.417	20.403	18.237	16.128		1.3.349	13.001	24.645
27.215	22.202	2.0 • 585 21 • 272	18.549 19.014	16-269		13,311		26.211
28.686	22.938	21.922	19.467	16.510		13.318		28 • 044
39.401	23.899	22-777	20.076	16.761 17.117		13.350		29.530
31.789	24.750	23.540	20.631	17:-451		13.448		31.262
33.496	25.810	24.497	21.339	17.890		13.548 13.697	_	32.663
34.717	26.711	25.317	21.958	18.283		13.840	13.205 13.323	34-297 35-620
36.248	27.797	26.314	22.725	18.781		14.033	13.485	
37.493	28.691	27.144	23.378	19.213		14.209	13.634	37.166 38.424
38 • 955	29.735	28.125	24.168	19.750	16.367	14.436	13.829	39.899
40 • 149	30.579	28: 921	24.828	2-02-08	16.660	14.637	14.002	41.105
41.559	31.516	29838	25.613	20.768	17.025	14.892	14.224	42.529
42.718	32.248	30:•562	26.256	21.241		15.115	14.418	43.699
43-866	32.922	31.242	26.885	21.718		15.346	14.621	44-859
45-235	33.546	31.993	27.614	22.292	18.058	15.634	14.875	46.242
	34.172	32-558			18.397			
47.738	34.797	33-156	28.858	23.341	18.812	16.193	15.373	48.769
48.882	35.067	33.583	29.373	2:3 - 812	19.164	16.461		49.924
50.266	35.398	34.006	29.943	24.369		16.792		51.322
51 - 435	35.588	34.281	30.372	24.823		17.078		52.502
52.860	35.717	34.517	30.825	25.352	20.403	17.432		53942
54.074	35.745	34.635	31.147	25.776		17.737	16.773	55.167
55.565	35.689	34-686	31.460	26.259		18.113	17.121	56.673
56.839	35.577	34.657	31.657	26.634		18.435	17.421	57.959
58.410	35.377	34-543	31.812	27.046		18.829		59.546
59,759	35.166	34-39-3	31 • 875	2-735?		19.162	18.109	-
61.416	34.880	34.160	31.871	27.663		19.564	18.495	62.582
0 1 U 7 1 U	0.44000	O 14.4-27 O O	0 T 4 O L T	C-1 4-000	C - 0 C 3	T 70 70 4	エリサマフン	ひともりのと

MA	CH NO =	30.00	CONE	ANG	LE =	8	• 00	A	NGLE	OF	AT	TAC	< =	1.00
								<b>.</b>				_		
					TREAM			PLA		ANG				- 4541
L/RN	0•	30•	•	.0.	9	0.		120	•	15	0 •		L80.	S/RN
62.835	34.625	33.936	31.8	ลกฉ	27.8	74	23	•16	3 1	9.8	97	18.	819	64.015
64.592	34.315	33.644	31.6		28.0			.53		0.2			.21î	65.789
66.099	34.063	33.395	31.9		28.1			.82		0.6			536	67.311
67.947	33.782	33.105	31.3		28.2					0.9			917	
69.523	33.570	32.877	31.0		28.2					1.2			224	
71.469	33.347	32.628	30.8		28.1					1.6			.577	
73.139	33.188	32.444	30.6		28.0			.70		1.8			856	74.419
75.179	33.035	32.258	30.3		27.9			.82		2.1			.162	76.480
76.911	32.937	32.132	30.1		27.7			.87		2.3			390	78.228
79.033	32.850	32.013	29.9		27.5			.89		2.5			631	80.372
80.838	32.802	31.940	29.8		27.4			.87		2.6			799	82.194
83.027	32.768	31.881	29.6		27.2			.81		22.7			961	84.405
84.875	32.756	31.851	29.6		27.0			.73		2.7			061	86.271
87.121	32 - 757	31.834	29.5		26.9			•62		2.8			. 141	
89.014	32.767	31.833	29.		26.7			.51		22.7			.176	
90.929	32.785	31.840	29.4		26.6			.40		2.7			.184	
93 • 26-2	32-812	31.858	29.4		26.5			• 26		22.6			162	
95.240	32.839	31.879	29.	397	26.4	90	24	•15	0 2	2.6	23	22	.120	96.738
97.660	32.875	31.909	29.3	399-	26.4	14	24	.01	8 2	22.5	S 0	22	-046	99.182
99.720	32-907	31.937	29.4	+08	26.3	64	23	·91	3 2	22.4	24	21	-968	101.262
102.250	32.946	31.973	29.1	+26	26.3	21	23	.79	8 2	2-3	02	21	8.60	103.816
104.411	32.980	32.005	29.	446	26.2	97	23	.71	1 2	2.1	97	21	.760	105.999
107.075	33-020	32.044	29.4	<b>+74</b>	26•2	80	23	•61	9 2	22.0	72			1:08.689
109.359	33-053	32.076	29.5	500	26.2			•55		21.9				110.996
112.185	33-089	32.114	29.							1.8	-			113.850
114.617	33:-118	32 • 145	29•							21.7				116.306
117.638	33.150									1-6				119.356
120.247	33.174	32,206	29.6				-	- %	_	11.5				121.991
123.500	33-198	32.234	29.		26.3					21.5			-	125.275
126.321	33.215	32.254	29.6		26.3					21.4				128.124
129.852	33,231	32.275	29.7		26.4			• 35		1.4				131.690
132.928	33.241	32.288	29.		26.4			• 36		21.3				134.796
136.794	33.250	32.300	29.7		26.4			•38		21.3				138.701
140.177	33,254	32.307	29.		26.4			• 39		21.3				142.117
144.450	33.257	32.312	29.		26.5			•42		21.3				146.432
148.207	33.258	32.315	29.8		26.5			.44		1.3				150.225
152-974	33.257	32.315	29.8		26.5			•47		21.3				155.039
157.185	33.254	32.314	29.		26.5			•49		21.3				159.291
162.555	33.250	32.310	29.		26.6			•53		21 - 3				164.715
167.323	33247	32.307	29.		26.6			-55		21-4				169.529
173 433	33.241	32.302	29.		26.6			•58		21-4				175.700
178 885	33.237	32.297	29.		26.6			•60		21.4				181.205
185.907	33.231	32.291	29.		26.6			•63		21.4				188.296 194.653
192.202	33.227	32.286	29.0		26.6		-	• 64		21.5				
200•352	33.223	32.281	29.	) U C	26.6	60	63	•66	-U 6	21.5	OT	20	• ō n C	202.883

MACI	H NO =	3.50	CONE ANGLE	E = 9.00	ANGLE	OF ATT	ACK = 1.	00
				DEAM AT	PLANE	ANGLES		
			P FREE-ST	00.	129.	150 •	180.	S/RN
L/RN	0•	30 •	60•	90•	160.	2500		
		. ==.	4 695	1.637	1.590	1.557	1.545	1.414
.844	1.734	1.721	1.685	1.619	1.571	1.537	1.525	1.517
•946	1.717	1.704	1.668	1.640	1.592	1.558	.1.545	1.574
1.002	1.739	1.725	1.689	1.651	1.604	1.570	1.558	1.698
1.124	1.749	1.735	1.699		1.599	1.566	1.554	1.838
1.263	1.741	1.728	1.692	1.645	1.588	1.556	1.544	1.995
1.418	1.729	1.715	1.681	1-:634	1.575	1.543	1.531	2.170
1.591	1.712	1.699	1.665	1.619	1.558	1.527	1.516	2.365
1.783	1.692	1.679	1.646	1.601	1.538	1.508	1.498	2.580
1.996	1.669	1.657	1.624	1.580	1.515	1.487	1.476	2.817
2.230	1.641	1.629	1.597	1.556	1.491	1.464	1.454	3.077
2.486	1.512	1.601	1.570	1.529		1.443	1.433	3.359
2.765	1.589	1.578	1.547	1.507	1.469	1.424	1.415	3.666
3.069	1.570	1.559	1.528	1.488	1.450	1.408	1.399	3.998
3.396	1.554	1.543	1.512	1.472	1.434	1.396	1.386	4.356
3.750	1.540	1.529	1.498	459	1.422	1.386	1.377	4.740
4.129	1.529	1.518	1.488	7.448	1.411	1.379	1.370	5.150
4.534	1.522	1.511	1.480	1 • 441	1.404		1.365	5.588
4.967	1.517	1.506	1.475	1 • 436	1.399	1.374	1.362	6.298
5.668	1.516	1.505	1.473	1.433	1.396	1.370	1.362	6.807
6.170	1.518	1.506	1.474	1.434	1.396	1.371	1.364	7.345
6.702	1.521	1.510	1.477	1.436	1.399	1.373	1.368	7.913
7.263	1.526	1.515	1.482	1.440	1.402	1.377	1.373	8.512
7.854	1.532	1.520	1.487	1446	1.407	1.381	1.378	9.142
8.477	1.539	1.527	1.494	1 • 452	1.413	1.387	1.384	9.804
9.130	1.547	1.534	1.500	1 - 458	1.419	1.393	1.391	10.498
9.816	1.554	1.542	1.508	1.465	1.426	1.400	1.397	11.225
10.534	1.562	1.549	1.515	1 • 472	1.433	1.406	1.404	11.985
11.285	1.570	1.557	1.522	1-479	1.439	1.413	1.411	12.781
12.071	1.577	1.564		1486	1.446	1.419	1.417	13.611
12.891	1.584	1.571		1.492	1.452	1.425	1.423	14.478
13.747	1.591	1.578	1.543	1.439	1.459	1.432	1.429	15.381
14.639	1.598		1.549	1.505	1.464	1-438	1.434	16.32?
15.568	1.504		1.555	1.510	1.470	1.443		17.301
16.536	1.609		1.560	1.516	1.475	1.448	1.444	18.320
17.542	1.615			1.521	1.480	1.453		19.379
18.588	1.619			1 • 525	1.484	1.457	1.448	21.045
20.233	1.626			1.531	1.490	1.463	1.454	22.209
21.383	1.630			1 • 535	1 • 494	1.467	1.458	23.417
22.576	1.634			1 • 538	1.497	1.470	1.461	24.670
23.814	1.637			1.542	1.500	1.473	1.464	25.969
25.097	1.640			1.544	<b>1.503</b>	1-,476	1.467	27.315
25.426	1.643			1.547	1.506	1.478	1.469	28.710
27.804	1.645				1.508	1.481	1.471	30-114
29.230					1.510	1-483		314650
30.708					1-512	1.485	1.475	37 4 03 0
200100	T 4 0 7 0							

L/RN	MA	CH NO =	3.50	CONE ANG	LE = 9.	00 ANGL	E OF ATT	ACK =	1.00
1.680   1.682   1.638   1.601   1.556   1.514   1.486   1.477   33.198   33.819   1.654   1.640   1.603   1.557   1.516   1.488   1.479   34.800   35.456   1.655   1.642   1.605   1.559   1.517   1.489   1.480   36.458   37.149   1.657   1.643   1.608   1.550   1.519   1.491   1.481   38.172   38.901   1.658   1.645   1.608   1.562   1.520   1.492   1.483   39.945   40.712   1.659   1.646   1.609   1.553   1.521   1.493   1.484   41.779   42.585   1.661   1.647   1.610   1.564   1.522   1.494   1.485   43.675   44.521   1.662   1.664   1.611   1.565   1.523   1.495   1.486   45.635   46.522   1.663   1.649   1.612   1.566   1.524   1.496   1.487   47.662   49.522   1.663   1.649   1.614   1.568   1.525   1.497   1.488   50.831   51.827   1.665   1.651   1.6514   1.558   1.525   1.497   1.488   50.831   51.827   1.665   1.651   1.6514   1.558   1.526   1.498   1.489   53.033   54.075   1.666   1.652   1.615   1.559   1.527   1.499   1.499   57.662   63.888   1.668   1.653   1.616   1.570   1.528   1.590   1.491   62.612   63.888   1.668   1.655   1.617   1.570   1.528   1.500   1.491   62.612   63.888   1.668   1.655   1.617   1.571   1.529   1.501   1.491   62.612   63.888   1.668   1.655   1.615   1.570   1.528   1.500   1.491   62.612   63.888   1.668   1.655   1.616   1.570   1.528   1.500   1.491   62.612   69.267   1.669   1.655   1.619   1.572   1.530   1.502   1.493   76.552   69.267   1.669   1.655   1.619   1.572   1.530   1.502   1.493   76.552   69.267   1.669   1.655   1.619   1.571   1.531   1.503   1.494   82.833   84.527   1.670   1.656   1.620   1.574   1.532   1.503   1.494   82.833   84.527   1.670   1.657   1.620   1.574   1.532   1.504   1.494   89.55   91.413   1.670   1.657   1.620   1.574   1.532   1.504   1.494   89.55   91.413   1.670   1.657   1.620   1.574   1.532   1.504   1.496   89.55   91.413   1.670   1.657   1.620   1.574   1.532   1.504   1.496   93.112   93.112   93.112   93.112   93.112   93.112   93.112   93.112   93.112   93.112   93.112   93.112   93.112   93.112   93.11			P / 1	P FRFF-S	TREAM A	T PLANE	ANGLES		
33.819 1.654 1.654 1.603 1.557 1.516 1.488 1.479 34.800 35.456 1.655 1.642 1.605 1.559 1.517 1.489 1.480 36.458 7.149 1.657 1.643 1.606 1.550 1.519 1.491 1.481 38.172 38.901 1.658 1.645 1.608 1.562 1.520 1.492 1.483 39.945 40.712 1.659 1.646 1.609 1.563 1.521 1.493 1.485 39.945 40.712 1.655 1.646 1.607 1.566 1.524 1.493 1.485 43.675 44.521 1.662 1.648 1.611 1.565 1.523 1.495 1.486 45.635 46.522 1.663 1.649 1.612 1.566 1.524 1.496 1.487 47.662 49.652 1.664 1.650 1.614 1.568 1.525 1.497 1.488 50.831 51.827 1.665 1.651 1.614 1.568 1.525 1.497 1.488 50.831 51.827 1.665 1.651 1.614 1.568 1.526 1.496 1.496 1.489 55.303 56.400 1.666 1.653 1.616 1.570 1.528 1.499 1.499 57.662 58.803 1.667 1.653 1.617 1.570 1.528 1.499 1.499 57.662 68.803 1.667 1.655 1.615 1.617 1.570 1.528 1.499 1.490 57.662 68.537 1.668 1.655 1.616 1.571 1.570 1.528 1.499 1.490 57.662 68.537 1.668 1.655 1.616 1.571 1.572 1.529 1.501 1.491 62.612 63.858 1.668 1.655 1.616 1.572 1.529 1.501 1.491 62.612 63.858 1.668 1.655 1.616 1.572 1.530 1.502 1.493 70.690 69.267 1.669 1.655 1.619 1.572 1.530 1.502 1.493 70.690 69.267 1.669 1.656 1.651 1.619 1.572 1.530 1.502 1.493 70.690 69.267 1.669 1.656 1.651 1.619 1.573 1.531 1.503 1.493 70.690 77.057 71.669 1.656 1.650 1.574 1.531 1.503 1.493 70.6590 70.600 1.656 1.650 1.574 1.532 1.501 1.493 65.214 1.494 82.833 81.260 1.670 1.656 1.602 1.574 1.532 1.501 1.493 70.6552 70.105 1.670 1.656 1.602 1.574 1.532 1.501 1.493 70.6552 70.404 1.494 86.140 1.577 1.657 1.658 1.657 1.657 1.652 1.575 1.533 1.500 1.493 70.6590 70.404 1.494 86.140 1.574 1.671 1.657 1.652 1.575 1.533 1.500 1.493 70.6591 1.494 70.652 1.575 1.533 1.500 1.493 70.6591 1.495 10.657 1.652 1.575 1.533 1.500 1.494 70.652 1.495 10.657 1.659 1.657 1.652 1.575 1.533 1.500 1.494 70.652 1.495 10.552 1.495 10.552 1.495 10.552 1.495 10.552 1.495 10.552 1.495 10.552 1.495 10.552 1.495 10.552 1.495 10.552 1.495 10.552 1.495 10.553 1.495 10.552 1.495 10.553 1.495 10.552 1.495 10.553 1.495 10.552 1.495 10.553 1.495 10.552 1.495 10.553 1.495 10.553 1.495 10.553 1.495	L/RN	0 •				•		180-	S/RN
33.819	32.237	1.652	1.638	1.601	1.556	1.514	1.486	1.477	
35.456						1.516	1.488		
37.149				1.605	1.559	1.517	1.489		
38.901				1.606	1.560	1.519	1.491	1.481	
40.772				1.608	1.562	1.520	1.492		
42.585				1.609	1.563	1.521	1.493		
44.521 1.662 1.648 1.641 1.565 1.523 1.495 1.486 45.635 46.522 1.663 1.649 1.612 1.566 1.524 1.496 1.487 47.662 49.652 1.664 1.650 1.614 1.568 1.525 1.497 1.488 53.033 54.075 1.666 1.652 1.615 1.5615 1.569 1.527 1.499 1.489 55.303 55.400 1.666 1.653 1.616 1.570 1.528 1.499 1.489 55.303 56.400 1.666 1.653 1.617 1.570 1.528 1.499 1.490 57.662 63.858 1.667 1.653 1.617 1.570 1.528 1.500 1.491 60.096 61.288 1.667 1.653 1.617 1.571 1.529 1.501 1.491 62.612 63.858 1.668 1.657 1.654 1.617 1.571 1.529 1.501 1.492 65.214 66.517 1.668 1.655 1.618 1.572 1.530 1.502 1.493 70.690 69.267 1.669 1.655 1.619 1.572 1.530 1.502 1.493 70.690 69.267 1.669 1.655 1.619 1.573 1.531 1.502 1.493 70.6570 72.112 1.669 1.656 1.619 1.573 1.531 1.502 1.493 70.6570 78.105 1.660 1.656 1.6619 1.574 1.531 1.503 1.494 82.833 84.527 1.670 1.656 1.620 1.574 1.532 1.504 1.494 82.833 84.527 1.670 1.657 1.620 1.574 1.532 1.504 1.494 82.833 84.527 1.670 1.657 1.620 1.574 1.532 1.504 1.494 82.833 84.527 1.670 1.657 1.620 1.574 1.532 1.504 1.494 82.833 84.527 1.670 1.657 1.620 1.574 1.532 1.504 1.494 82.833 84.527 1.670 1.657 1.620 1.574 1.532 1.504 1.494 82.833 84.527 1.670 1.657 1.620 1.574 1.532 1.504 1.494 82.833 84.527 1.670 1.657 1.620 1.574 1.532 1.504 1.494 82.833 1.494 82.833 1.505 1.495 10.656 1.620 1.575 1.533 1.505 1.495 100.559 104.696 1.671 1.657 1.621 1.575 1.533 1.505 1.495 100.559 104.696 1.671 1.657 1.621 1.575 1.533 1.505 1.495 100.559 104.696 1.671 1.658 1.622 1.576 1.533 1.505 1.495 100.559 104.696 1.671 1.658 1.622 1.576 1.533 1.505 1.495 100.559 104.696 1.671 1.658 1.622 1.576 1.534 1.505 1.495 100.590 14.494 1.506 1.496 124.128 122.047 1.671 1.658 1.622 1.576 1.534 1.505 1.495 100.559 1.495 100.559 1.495 100.559 1.495 100.559 1.495 100.559 1.495 100.559 1.495 100.559 1.495 100.559 1.495 100.559 1.495 100.559 1.495 100.559 1.495 100.559 1.495 100.559 1.495 100.559 1.495 100.559 1.495 100.559 1.495 100.559 1.495 100.559 1.495 100.559 1.495 100.650 1.496 139.495 100.559 1.495 100.650 1.496 139.495 100.559 1.495 100.650 1.496 139.495 1			1.647	1.610	1.564	1.522	1.494		
46.522				1.611	1.565	1.523	1.495		
49.652         1.664         1.650         1.614         1.568         1.525         1.497         1.488         50.831           51.827         1.665         1.651         1.615         1.569         1.527         1.499         1.489         53.033           56.400         1.666         1.653         1.616         1.570         1.528         1.499         1.490         57.662           58.803         1.667         1.653         1.617         1.570         1.528         1.500         1.491         60.096           61.288         1.667         1.654         1.618         1.571         1.529         1.501         1.491         62.612           63.858         1.668         1.655         1.618         1.572         1.530         1.502         1.492         67.906           72.112         1.669         1.655         1.619         1.573         1.531         1.502         1.493         70.557           78.105         1.669         1.656         1.619         1.573         1.531         1.502         1.493         70.557           78.105         1.670         1.656         1.620         1.574         1.532         1.503         1.494         82.833			1.649	1.612	1.566				
51.827         1.665         1.651         1.614         1.568         1.498         1.489         53.033           56.407         1.666         1.653         1.616         1.570         1.528         1.499         1.489         55.309           58.803         1.667         1.653         1.617         1.570         1.528         1.500         1.491         60.096           61.288         1.667         1.653         1.617         1.571         1.529         1.501         1.492         65.214           63.858         1.668         1.655         1.618         1.572         1.530         1.502         1.492         67.906           69.267         1.669         1.655         1.619         1.572         1.530         1.502         1.493         73.571           78.105         1.669         1.656         1.619         1.573         1.531         1.502         1.493         75.557           78.105         1.670         1.656         1.620         1.574         1.531         1.503         1.494         82.833           81.260         1.670         1.657         1.620         1.574         1.532         1.504         1.494         82.833			1.650	1.614	1.568				
54.075         1.666         1.652         1.615         1.569         1.527         1.499         1.489         57.662           58.803         1.667         1.653         1.617         1.570         1.528         1.499         57.662           61.288         1.667         1.654         1.617         1.571         1.529         1.501         1.491         62.612           63.858         1.668         1.655         1.618         1.572         1.530         1.502         1.492         67.906           69.267         1.669         1.655         1.618         1.572         1.530         1.502         1.493         70.690           72.112         1.669         1.656         1.619         1.573         1.531         1.502         1.493         70.690           72.112         1.669         1.656         1.619         1.573         1.531         1.502         1.493         76.552           78.105         1.670         1.656         1.620         1.574         1.531         1.503         1.494         76.552           81.260         1.670         1.657         1.620         1.574         1.532         1.503         1.494         82.833		1.665	1.651	1.614	1.568				
56.400         1.666         1.653         1.616         1.570         1.528         1.499         57.662           61.288         1.667         1.653         1.617         1.570         1.528         1.500         1.491         60.096           61.288         1.667         1.654         1.618         1.572         1.529         1.501         1.491         62.612           63.858         1.668         1.6554         1.618         1.572         1.529         1.501         1.492         65.214           66.517         1.668         1.655         1.618         1.572         1.530         1.502         1.493         70.690           72.112         1.669         1.655         1.619         1.573         1.531         1.502         1.493         73.571           75.057         1.669         1.656         1.619         1.573         1.531         1.503         1.494         70.638           81.260         1.670         1.657         1.620         1.574         1.532         1.504         1.494         86.140           87.909         1.670         1.657         1.620         1.574         1.532         1.504         1.494         86.140		1.666	1.652	1.615					
58.803         1.667         1.653         1.617         1.570         1.528         1.500         1.491         60.099           61.288         1.668         1.654         1.618         1.572         1.529         1.501         1.492         65.214           63.858         1.668         1.655         1.618         1.572         1.530         1.502         1.492         67.906           69.267         1.669         1.655         1.619         1.572         1.530         1.502         1.493         70.690           72.112         1.669         1.655         1.619         1.573         1.531         1.502         1.493         73.571           75.057         1.669         1.656         1.619         1.573         1.531         1.503         1.493         76.552           78.105         1.670         1.656         1.620         1.574         1.531         1.503         1.494         82.833           81.260         1.670         1.657         1.620         1.574         1.532         1.504         1.494         82.833           81.493         1.670         1.657         1.620         1.574         1.532         1.504         1.494         82.833		1.666	1.653	1.616	1.570				
63.858 1.668 1.654 1.618 1.572 1.529 1.501 1.492 65.214 66.517 1.668 1.655 1.618 1.572 1.530 1.502 1.493 70.690 69.267 1.669 1.655 1.619 1.572 1.530 1.502 1.493 70.690 72.112 1.669 1.656 1.619 1.573 1.531 1.502 1.493 73.571 75.057 1.669 1.656 1.619 1.573 1.531 1.503 1.493 73.571 75.057 1.669 1.656 1.619 1.573 1.531 1.503 1.493 76.552 78.105 1.670 1.656 1.620 1.574 1.532 1.503 1.494 82.833 84.527 1.670 1.657 1.620 1.574 1.532 1.503 1.494 82.833 84.527 1.670 1.657 1.620 1.574 1.532 1.504 1.494 86.140 87.909 1.670 1.657 1.620 1.574 1.532 1.504 1.494 86.140 87.909 1.670 1.657 1.620 1.574 1.532 1.504 1.494 89.535 91.413 1.670 1.657 1.620 1.575 1.532 1.504 1.495 93.12 95.042 1.671 1.657 1.621 1.575 1.533 1.505 1.495 100.592 104.696 1.671 1.657 1.621 1.575 1.533 1.505 1.495 100.592 104.696 1.671 1.657 1.621 1.575 1.533 1.505 1.495 100.592 113.062 1.671 1.658 1.621 1.575 1.533 1.505 1.495 110.720 113.062 1.671 1.658 1.621 1.575 1.533 1.505 1.495 110.720 113.062 1.671 1.658 1.621 1.575 1.533 1.505 1.495 110.720 113.062 1.671 1.658 1.621 1.575 1.533 1.505 1.495 110.720 113.062 1.671 1.658 1.621 1.575 1.533 1.505 1.495 110.720 113.062 1.671 1.658 1.621 1.575 1.533 1.505 1.495 110.720 113.062 1.671 1.658 1.621 1.575 1.533 1.505 1.496 119.498 122.047 1.671 1.658 1.622 1.576 1.533 1.505 1.496 124.128 126.787 1.672 1.658 1.622 1.576 1.534 1.505 1.496 124.128 126.792 1.672 1.658 1.622 1.576 1.534 1.505 1.496 133.9057 142.072 1.672 1.658 1.622 1.576 1.534 1.505 1.496 133.9057 142.072 1.672 1.658 1.622 1.576 1.534 1.506 1.496 155.687 171.517 1.672 1.659 1.622 1.576 1.534 1.506 1.496 167.496 167.491 1.579 1.622 1.576 1.534 1.506 1.496 161.641 1.579 1.659 1.622 1.576 1.534 1.506 1.496 161.641 1.596 1.669 1.662 1.577 1.534 1.506 1.496 161.641 1.496 161.644 1.672 1.659 1.622 1.576 1.534 1.506 1.496 161.641 1.496 161.644 1.672 1.659 1.622 1.576 1.534 1.506 1.496 161.641 1.496 161.644 1.672 1.659 1.622 1.576 1.534 1.506 1.496 161.641 1.496 161.644 1.672 1.659 1.623 1.577 1.534 1.506 1.496 161.641 1.496 161.644 1.672 1.659 1.623 1.577		1.667	1.653						
66.517 1.668 1.655 1.618 1.572 1.530 1.502 1.492 67.906 69.267 1.669 1.655 1.619 1.572 1.530 1.502 1.493 70.690 72.112 1.669 1.656 1.619 1.573 1.531 1.502 1.493 73.571 75.057 1.669 1.656 1.619 1.573 1.531 1.502 1.493 73.571 75.057 1.669 1.656 1.619 1.573 1.531 1.503 1.493 76.552 78.105 1.670 1.656 1.620 1.574 1.532 1.503 1.494 82.833 84.527 1.670 1.657 1.620 1.574 1.532 1.503 1.494 82.833 84.527 1.670 1.657 1.620 1.574 1.532 1.504 1.494 89.535 91.413 1.670 1.657 1.620 1.574 1.532 1.504 1.494 89.535 91.413 1.670 1.657 1.620 1.575 1.532 1.504 1.495 93.112 95.042 1.671 1.657 1.621 1.575 1.533 1.504 1.495 93.112 95.042 1.671 1.657 1.621 1.575 1.533 1.504 1.495 93.112 1.504 1.495 93.112 1.504 1.495 93.112 1.504 1.495 1.00.5561 1.666 1.671 1.657 1.621 1.575 1.533 1.505 1.495 1.00.5561 1.3062 1.671 1.658 1.621 1.575 1.533 1.505 1.495 1.00.5561 1.3062 1.671 1.658 1.621 1.575 1.533 1.505 1.495 1.00.5561 1.3062 1.671 1.658 1.621 1.575 1.533 1.505 1.495 1.00.5561 1.3062 1.671 1.658 1.621 1.575 1.533 1.505 1.495 1.00.5561 1.3062 1.671 1.658 1.621 1.575 1.533 1.505 1.495 1.00.5561 1.495 1.00.5561 1.574 1.575 1.533 1.505 1.495 1.00.5561 1.574 1.671 1.658 1.621 1.575 1.533 1.505 1.495 1.00.5561 1.3062 1.671 1.658 1.621 1.575 1.533 1.505 1.496 119.498 1.22.047 1.671 1.658 1.621 1.575 1.533 1.505 1.496 119.498 1.22.047 1.671 1.658 1.622 1.576 1.534 1.505 1.496 119.498 1.22.047 1.671 1.658 1.622 1.576 1.534 1.505 1.496 133.901 1.505 1.496 1.506 1.496 1		1.667	1.654	1-617	1.571				
66.517	63.858	1.668	1.654	1.618	1.572				
72.112 1.669 1.656 1.619 1.573 1.531 1.502 1.493 73.571 75.057 1.669 1.656 1.619 1.573 1.531 1.503 1.493 76.552 78.105 1.670 1.656 1.620 1.574 1.531 1.503 1.494 79.638 81.260 1.670 1.655 1.620 1.574 1.532 1.504 1.494 82.833 84.527 1.670 1.657 1.620 1.574 1.532 1.504 1.494 86.140 87.909 1.670 1.657 1.620 1.574 1.532 1.504 1.494 89.535 91.413 1.670 1.657 1.620 1.575 1.532 1.504 1.495 93.112 95.042 1.671 1.657 1.621 1.575 1.533 1.504 1.495 96.786 98.801 1.671 1.657 1.621 1.575 1.533 1.505 1.495 100.552 104.696 1.671 1.657 1.621 1.575 1.533 1.505 1.495 100.552 113.062 1.671 1.658 1.621 1.575 1.533 1.505 1.495 100.552 113.062 1.671 1.658 1.621 1.575 1.533 1.505 1.495 110.720 113.062 1.671 1.658 1.621 1.575 1.533 1.505 1.495 110.720 113.062 1.671 1.658 1.621 1.575 1.533 1.505 1.496 112.496 12.047 1.671 1.658 1.622 1.576 1.533 1.505 1.496 112.498 122.047 1.671 1.658 1.622 1.576 1.533 1.505 1.496 124.128 126.787 1.672 1.658 1.622 1.576 1.534 1.505 1.496 124.928 127.072 1.672 1.658 1.622 1.576 1.534 1.505 1.496 133.901 136.792 1.672 1.658 1.622 1.576 1.534 1.505 1.496 133.901 137.544 1.672 1.659 1.622 1.576 1.534 1.506 1.496 144.90 147.544 1.672 1.659 1.622 1.576 1.534 1.506 1.496 149.943 153.217 1.672 1.659 1.622 1.576 1.534 1.506 1.496 161.641 171.517 1.672 1.659 1.622 1.576 1.534 1.506 1.496 161.641 171.517 1.672 1.659 1.622 1.576 1.534 1.506 1.496 161.641 171.517 1.672 1.659 1.622 1.576 1.534 1.506 1.496 167.815 171.517 1.672 1.659 1.622 1.576 1.534 1.506 1.496 161.641 171.517 1.672 1.659 1.622 1.576 1.534 1.506 1.496 161.641 171.517 1.672 1.659 1.622 1.576 1.534 1.506 1.496 167.815 171.617 1.672 1.659 1.622 1.576 1.534 1.506 1.496 161.641 171.517 1.672 1.659 1.622 1.576 1.534 1.506 1.496 167.815 171.517 1.672 1.659 1.622 1.576 1.534 1.506 1.496 167.815		1.658	1.655	1.618	1.572	-			
75.057 1.669 1.656 1.619 1.573 1.531 1.503 1.493 76.552 78.105 1.670 1.656 1.620 1.574 1.531 1.503 1.494 79.638 81.260 1.670 1.656 1.620 1.574 1.532 1.503 1.494 82.833 84.527 1.670 1.657 1.620 1.574 1.532 1.504 1.494 86.140 87.909 1.670 1.657 1.620 1.574 1.532 1.504 1.494 89.555 91.413 1.670 1.657 1.620 1.575 1.532 1.504 1.495 93.112 95.042 1.671 1.657 1.621 1.575 1.533 1.504 1.495 96.786 98.801 1.671 1.657 1.621 1.575 1.533 1.505 1.495 100.552 104.696 1.671 1.657 1.621 1.575 1.533 1.505 1.495 100.552 113.062 1.671 1.658 1.621 1.575 1.533 1.505 1.495 100.552 113.062 1.671 1.658 1.621 1.575 1.533 1.505 1.495 110.720 113.062 1.671 1.658 1.621 1.575 1.533 1.505 1.495 110.720 113.062 1.671 1.658 1.621 1.575 1.533 1.505 1.495 110.720 113.062 1.671 1.658 1.621 1.575 1.533 1.505 1.496 119.498 122.047 1.671 1.658 1.622 1.576 1.533 1.505 1.496 119.498 122.047 1.671 1.658 1.622 1.576 1.533 1.505 1.496 128.927 131.700 1.672 1.658 1.622 1.576 1.534 1.505 1.496 128.927 131.700 1.672 1.658 1.622 1.576 1.534 1.505 1.496 133.901 136.792 1.672 1.658 1.622 1.576 1.534 1.505 1.496 133.901 136.792 1.672 1.658 1.622 1.576 1.534 1.505 1.496 139.057 142.072 1.672 1.658 1.622 1.576 1.534 1.506 1.496 139.057 142.072 1.672 1.659 1.622 1.576 1.534 1.506 1.496 144.402 153.217 1.672 1.659 1.622 1.576 1.534 1.506 1.496 149.943 153.217 1.672 1.659 1.622 1.576 1.534 1.506 1.496 161.641 165.196 1.672 1.659 1.622 1.576 1.534 1.506 1.496 161.641 165.196 1.672 1.659 1.622 1.576 1.534 1.506 1.496 161.641 165.196 1.672 1.659 1.622 1.576 1.534 1.506 1.496 161.641 165.196 1.672 1.659 1.622 1.576 1.534 1.506 1.496 161.641 165.196 1.672 1.659 1.622 1.576 1.534 1.506 1.496 161.641 165.196 1.672 1.659 1.622 1.576 1.534 1.506 1.496 161.641 165.196 1.672 1.659 1.622 1.576 1.534 1.506 1.496 180.850 184.864 1.671 1.659 1.623 1.577 1.534 1.506 1.496 180.850		1.669	1.655	1.619					
78.105	72.112	1.669	1.656	1.619				_	
81.260	75.057	1.669	1.656	1.619					
84.527 1.670 1.657 1.620 1.574 1.532 1.504 1.494 86.140 87.909 1.670 1.657 1.620 1.575 1.532 1.504 1.494 89.555 91.413 1.670 1.657 1.620 1.575 1.532 1.504 1.495 93.112 95.042 1.671 1.657 1.621 1.575 1.533 1.504 1.495 96.786 98.801 1.671 1.657 1.621 1.575 1.533 1.505 1.495 100.592 104.696 1.671 1.657 1.621 1.575 1.533 1.505 1.495 100.592 104.696 1.671 1.658 1.621 1.575 1.533 1.505 1.495 110.720 113.062 1.671 1.658 1.621 1.575 1.533 1.505 1.495 110.720 117.474 1.671 1.658 1.621 1.575 1.533 1.505 1.495 110.720 117.474 1.671 1.658 1.621 1.575 1.533 1.505 1.496 119.498 112.047 1.671 1.658 1.621 1.575 1.533 1.505 1.496 119.498 122.047 1.671 1.658 1.622 1.576 1.533 1.505 1.496 124.128 126.787 1.672 1.658 1.622 1.576 1.534 1.505 1.496 128.927 131.700 1.672 1.658 1.622 1.576 1.534 1.505 1.496 133.901 136.792 1.672 1.658 1.622 1.576 1.534 1.505 1.496 133.901 136.792 1.672 1.658 1.622 1.576 1.534 1.505 1.496 133.901 136.792 1.672 1.658 1.622 1.576 1.534 1.505 1.496 139.057 142.072 1.672 1.658 1.622 1.576 1.534 1.506 1.496 149.943 153.217 1.672 1.659 1.622 1.576 1.534 1.506 1.496 149.943 153.217 1.672 1.659 1.622 1.576 1.534 1.506 1.496 167.815 171.517 1.672 1.659 1.622 1.576 1.534 1.506 1.496 167.815 171.507 1.672 1.659 1.622 1.576 1.534 1.506 1.496 167.815 171.507 1.672 1.659 1.623 1.577 1.534 1.506 1.496 187.728 184.864 1.672 1.659 1.623 1.577 1.534 1.506 1.496 187.728	78.105	1.670	1.656	1.620				-	
87.909 1.670 1.657 1.620 1.574 1.532 1.504 1.494 89.55 91.413 1.670 1.657 1.620 1.575 1.532 1.504 1.495 93.12 95.042 1.671 1.657 1.621 1.575 1.533 1.504 1.495 96.786 98.801 1.671 1.657 1.621 1.575 1.533 1.505 1.495 100.592 104.696 1.671 1.657 1.621 1.575 1.533 1.505 1.495 106.561 108.804 1.671 1.658 1.621 1.575 1.533 1.505 1.495 110.720 113.062 1.671 1.658 1.621 1.575 1.533 1.505 1.495 110.720 113.062 1.671 1.658 1.621 1.575 1.533 1.505 1.495 110.720 113.062 1.671 1.658 1.621 1.575 1.533 1.505 1.496 119.498 122.047 1.671 1.658 1.622 1.576 1.533 1.505 1.496 119.498 122.047 1.671 1.658 1.622 1.576 1.533 1.505 1.496 124.128 126.787 1.672 1.658 1.622 1.576 1.534 1.505 1.496 128.927 131.700 1.672 1.658 1.622 1.576 1.534 1.505 1.496 133.901 136.792 1.672 1.658 1.622 1.576 1.534 1.505 1.496 139.057 142.072 1.672 1.658 1.622 1.576 1.534 1.505 1.496 139.057 142.072 1.672 1.658 1.622 1.576 1.534 1.505 1.496 139.057 142.072 1.672 1.659 1.622 1.576 1.534 1.506 1.496 155.687 159.099 1.672 1.659 1.622 1.576 1.534 1.506 1.496 155.687 159.099 1.672 1.659 1.622 1.576 1.534 1.506 1.496 155.687 171.517 1.672 1.659 1.622 1.576 1.534 1.506 1.496 167.815 171.517 1.672 1.659 1.622 1.576 1.534 1.506 1.496 167.815 171.672 1.659 1.622 1.576 1.534 1.506 1.496 167.815 171.517 1.672 1.659 1.622 1.576 1.534 1.506 1.496 180.850 184.864 1.672 1.659 1.623 1.577 1.534 1.506 1.496 187.728 191.908 1.673 1.659 1.623 1.577 1.534 1.506 1.496 187.728	81.260	1.670	1.656						
91.413	84.527	1.670	1.657					-	
95.042 1.671 1.657 1.621 1.575 1.533 1.504 1.495 96.786 98.801 1.671 1.657 1.621 1.575 1.533 1.505 1.495 100.592 104.696 1.671 1.658 1.621 1.575 1.533 1.505 1.495 106.561 108.804 1.671 1.658 1.621 1.575 1.533 1.505 1.495 110.720 113.062 1.671 1.658 1.621 1.575 1.533 1.505 1.495 110.720 117.474 1.671 1.658 1.621 1.575 1.533 1.505 1.496 119.498 122.047 1.671 1.658 1.622 1.576 1.533 1.505 1.496 124.128 126.787 1.672 1.658 1.622 1.576 1.534 1.505 1.496 128.927 131.700 1.672 1.658 1.622 1.576 1.534 1.505 1.496 139.057 142.072 1.672 1.658 1.622 1.576 1.534 1.505 1.496 139.057 142.072 1.672 1.658 1.622 1.576 1.534 1.505 1.496 139.057 142.072 1.672 1.658 1.622 1.576 1.534 1.505 1.496 139.057 147.544 1.672 1.658 1.622 1.576 1.534 1.505 1.496 139.057 147.544 1.672 1.659 1.622 1.576 1.534 1.506 1.496 149.943 153.217 1.672 1.659 1.622 1.576 1.534 1.506 1.496 149.943 159.099 1.672 1.659 1.622 1.576 1.534 1.506 1.496 161.641 165.196 1.672 1.659 1.622 1.576 1.534 1.506 1.496 161.641 165.196 1.672 1.659 1.622 1.576 1.534 1.506 1.496 161.641 165.196 1.672 1.659 1.622 1.576 1.534 1.506 1.496 161.641 178.070 1.672 1.659 1.622 1.576 1.534 1.506 1.496 167.815 171.517 1.672 1.659 1.623 1.577 1.534 1.506 1.496 180.850 184.864 1.672 1.659 1.623 1.577 1.534 1.506 1.496 180.850 184.864 1.672 1.659 1.623 1.577 1.534 1.506 1.496 180.850	87,909	1.670	1.657						
98.801 1.671 1.657 1.621 1.575 1.533 1.505 1.495 100.592 104.696 1.671 1.657 1.621 1.575 1.533 1.505 1.495 106.561 108.804 1.671 1.658 1.621 1.575 1.533 1.505 1.495 110.720 113.062 1.671 1.658 1.621 1.575 1.533 1.505 1.495 110.720 117.474 1.671 1.658 1.621 1.575 1.533 1.505 1.496 119.498 122.047 1.671 1.658 1.622 1.576 1.533 1.505 1.496 124.128 126.787 1.672 1.658 1.622 1.576 1.534 1.505 1.496 124.128 126.787 1.672 1.658 1.622 1.576 1.534 1.505 1.496 128.927 131.700 1.672 1.658 1.622 1.576 1.534 1.505 1.496 133.901 136.792 1.672 1.658 1.622 1.576 1.534 1.505 1.496 139.057 142.072 1.672 1.658 1.622 1.576 1.534 1.505 1.496 139.057 147.544 1.672 1.659 1.622 1.576 1.534 1.505 1.496 149.943 153.217 1.672 1.659 1.622 1.576 1.534 1.506 1.496 149.943 153.217 1.672 1.659 1.622 1.576 1.534 1.506 1.496 149.943 155.17 1.672 1.659 1.622 1.576 1.534 1.506 1.496 167.641 165.196 1.672 1.659 1.622 1.576 1.534 1.506 1.496 167.815 171.517 1.672 1.659 1.622 1.576 1.534 1.506 1.496 167.815 171.517 1.672 1.659 1.622 1.576 1.534 1.506 1.496 167.815 171.517 1.672 1.659 1.622 1.576 1.534 1.506 1.496 167.815 171.517 1.672 1.659 1.622 1.576 1.534 1.506 1.496 167.815 171.517 1.672 1.659 1.622 1.576 1.534 1.506 1.496 187.728 184.864 1.672 1.659 1.623 1.577 1.534 1.506 1.496 187.728 191.908 1.673 1.659 1.623 1.577 1.534 1.506 1.496 187.728 191.908 1.673 1.559 1.623 1.577 1.534 1.506 1.496 187.728 191.908 1.673 1.559 1.623 1.577 1.534 1.506 1.496 187.728 191.908 1.673 1.559 1.623 1.577 1.534 1.506 1.496 187.728 191.908 1.673 1.559 1.623 1.577 1.534 1.506 1.496 187.728 191.908 1.673 1.559 1.623 1.577 1.534 1.506 1.496 187.728 191.908 1.673 1.559 1.623 1.577 1.534 1.506 1.496 187.728 191.908 1.673 1.559 1.623 1.577 1.534 1.506 1.496 187.728 191.908 1.673 1.559 1.623 1.577 1.534 1.506 1.496 187.728 191.908 1.673 1.559 1.623 1.577 1.534 1.506 1.496 187.728 191.908 1.673 1.559 1.623 1.577 1.534 1.506 1.496 187.728 191.908 1.673 1.559 1.623 1.577 1.534 1.506 1.496 187.728 191.908 1.673 1.559 1.623 1.577 1.534 1.506 1.496 187.728 191.908 1.673 1.59	91.413	1.670	1.657						
104.696	95.042	1.671							
108.804       1.671       1.658       1.621       1.575       1.533       1.505       1.495       110.720         113.062       1.671       1.658       1.621       1.575       1.533       1.505       1.495       115.030         117.474       1.671       1.658       1.621       1.575       1.533       1.505       1.496       119.498         122.047       1.671       1.658       1.622       1.576       1.533       1.505       1.496       124.128         126.787       1.672       1.658       1.622       1.576       1.534       1.505       1.496       128.927         131.700       1.672       1.658       1.622       1.576       1.534       1.505       1.496       128.927         131.700       1.672       1.658       1.622       1.576       1.534       1.505       1.496       139.057         142.072       1.672       1.658       1.622       1.576       1.534       1.505       1.496       139.057         147.544       1.672       1.659       1.622       1.576       1.534       1.506       1.496       149.943         159.099       1.672       1.659       1.622       1.576	98.801	1.671							
113.062	104.696								
117.474       1.671       1.65.8       1.621       1.575       1.533       1.505       1.496       119.498         122.047       1.671       1.65.8       1.622       1.576       1.533       1.505       1.496       124.128         126.787       1.672       1.658       1.622       1.576       1.534       1.505       1.496       128.927         131.700       1.672       1.658       1.622       1.576       1.534       1.505       1.496       133.901         136.792       1.672       1.658       1.622       1.576       1.534       1.505       1.496       139.057         142.072       1.672       1.658       1.622       1.576       1.534       1.505       1.496       144.402         147.544       1.672       1.659       1.622       1.576       1.534       1.506       1.496       149.943         153.217       1.672       1.659       1.622       1.576       1.534       1.506       1.496       149.949         159.099       1.672       1.659       1.622       1.576       1.534       1.506       1.496       167.815         171.517       1.672       1.659       1.622       1.576 <t< td=""><td>108.804</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	108.804								
122.047       1.671       1.658       1.622       1.576       1.533       1.505       1.496       124.128         126.787       1.672       1.658       1.622       1.576       1.534       1.505       1.496       128.927         131.700       1.672       1.658       1.622       1.576       1.534       1.505       1.496       133.901         136.792       1.672       1.658       1.622       1.576       1.534       1.505       1.496       139.057         142.072       1.672       1.658       1.622       1.576       1.534       1.505       1.496       139.057         142.072       1.672       1.659       1.622       1.576       1.534       1.505       1.496       149.943         153.217       1.672       1.659       1.622       1.576       1.534       1.506       1.496       149.943         159.099       1.672       1.659       1.622       1.576       1.534       1.506       1.496       167.815         171.517       1.672       1.659       1.622       1.576       1.534       1.506       1.496       167.815         178.070       1.672       1.659       1.623       1.577	113.062								
126.787       1.672       1.658       1.622       1.576       1.534       1.505       1.496       128.927         131.700       1.672       1.658       1.622       1.576       1.534       1.505       1.496       133.901         136.792       1.672       1.658       1.622       1.576       1.534       1.505       1.496       139.057         142.072       1.672       1.658       1.622       1.576       1.534       1.505       1.496       149.943         147.544       1.672       1.659       1.622       1.576       1.534       1.506       1.496       149.943         153.217       1.672       1.659       1.622       1.576       1.534       1.506       1.496       155.687         159.099       1.672       1.659       1.622       1.576       1.534       1.506       1.496       161.641         165.196       1.672       1.659       1.622       1.576       1.534       1.506       1.496       167.815         178.070       1.672       1.659       1.623       1.576       1.534       1.506       1.496       174.215         184.864       1.672       1.659       1.623       1.577									
131.700       1.672       1.658       1.622       1.576       1.534       1.505       1.496       133.901         136.792       1.672       1.658       1.622       1.576       1.534       1.505       1.496       139.057         142.072       1.672       1.658       1.622       1.576       1.534       1.505       1.496       144.402         147.544       1.672       1.659       1.622       1.576       1.534       1.506       1.496       149.943         153.217       1.672       1.659       1.622       1.576       1.534       1.506       1.496       155.687         159.099       1.672       1.659       1.622       1.576       1.534       1.506       1.496       161.641         165.196       1.672       1.659       1.622       1.576       1.534       1.506       1.496       167.815         171.517       1.672       1.659       1.623       1.577       1.534       1.506       1.496       174.215         184.864       1.672       1.659       1.623       1.577       1.534       1.506       1.496       187.728         191.908       1.673       1.659       1.623       1.577									
136.792       1.672       1.658       1.622       1.576       1.534       1.505       1.496       139.057         142.072       1.672       1.658       1.622       1.576       1.534       1.505       1.496       144.402         147.544       1.672       1.659       1.622       1.576       1.534       1.506       1.496       149.943         153.217       1.672       1.659       1.622       1.576       1.534       1.506       1.496       155.687         159.099       1.672       1.659       1.622       1.576       1.534       1.506       1.496       161.641         165.196       1.672       1.659       1.622       1.576       1.534       1.506       1.496       167.815         171.517       1.672       1.659       1.622       1.576       1.534       1.506       1.496       174.215         178.070       1.672       1.659       1.623       1.577       1.534       1.506       1.496       187.728         184.864       1.672       1.659       1.623       1.577       1.534       1.506       1.496       187.728         191.908       1.673       1.659       1.623       1.577	126.787	1.672							
142.072       1.672       1.658       1.622       1.576       1.534       1.505       1.496       144.492         147.544       1.672       1.659       1.622       1.576       1.534       1.506       1.496       149.943         153.217       1.672       1.659       1.622       1.576       1.534       1.506       1.496       155.687         159.099       1.672       1.659       1.622       1.576       1.534       1.506       1.496       161.641         165.196       1.672       1.659       1.622       1.576       1.534       1.506       1.496       167.815         171.517       1.672       1.659       1.622       1.576       1.534       1.506       1.496       174.215         178.070       1.672       1.659       1.623       1.577       1.534       1.506       1.496       187.728         184.864       1.672       1.659       1.623       1.577       1.534       1.506       1.496       187.728         191.908       1.673       1.659       1.623       1.577       1.534       1.506       1.496       187.728	131.700								
147.544       1.672       1.659       1.622       1.576       1.534       1.506       1.496       149.943         153.217       1.672       1.659       1.622       1.576       1.534       1.506       1.496       155.687         159.099       1.672       1.659       1.622       1.576       1.534       1.506       1.496       161.641         165.196       1.672       1.659       1.622       1.576       1.534       1.506       1.496       167.815         171.517       1.672       1.659       1.622       1.576       1.534       1.506       1.496       174.215         178.070       1.672       1.659       1.623       1.577       1.534       1.506       1.496       180.850         184.864       1.672       1.659       1.623       1.577       1.534       1.506       1.496       187.728         191.908       1.673       1.659       1.623       1.577       1.534       1.506       1.496       194.860	136.792								
153.217	142.072								
159.099	147.544			1,0,0 6 6					
165.196       1.672       1.659       1.622       1.576       1.534       1.506       1.496       167.815         171.517       1.672       1.659       1.622       1.576       1.534       1.506       1.496       174.215         178.070       1.672       1.659       1.623       1.577       1.534       1.506       1.496       180.850         184.864       1.672       1.659       1.623       1.577       1.534       1.506       1.496       187.728         191.908       1.673       1.659       1.623       1.577       1.534       1.506       1.496       194.860	153.217								
171.517 1.672 1.659 1.622 1.576 1.534 1.506 1.496 174.215 178.070 1.672 1.659 1.623 1.577 1.534 1.506 1.496 180.850 184.864 1.672 1.659 1.623 1.577 1.534 1.506 1.496 187.728 191.908 1.673 1.659 1.623 1.577 1.534 1.506 1.496 194.860								1.496	- 101.0041 4:67 945
178.070 1.672 1.659 1.623 1.577 1.534 1.506 1.496 180.850 184.864 1.672 1.659 1.623 1.577 1.534 1.506 1.496 187.728 191.908 1.673 1.659 1.623 1.577 1.534 1.506 1.496 194.860								7-0495	10/01/2 47/ 24 E
184.864 1.672 1.659 1.623 1.577 1.534 1.506 1.496 187.728 191.908 1.673 1.659 1.623 1.577 1.534 1.506 1.496 194.860									
191.908 1.673 1.659 1.623 1.577 1.534 1.506 1.496 194.860									
1914900 14000 206 052			=	-					
202-963 1-6/3 1-659 1-625 1-5// 1-534 1-506 1-456 200-072	202.963	1.673	1.659°	1.623	1.577	1.534	1.506	1.430	: CAO.025

MACI	H NO =	5.00	CONE ANGLI	E = 9.00	ANGL	E OF ATT	ACK = 1	.00
						ANGLES		
			P FREE-ST		120 •	150 •	180.	SZRN
L/RN	0 •	30•	60•	90•	1200	1704		
			0 075	2.747	2.662	2.601	2.579	1.414
.844	2.925	2.900	2.835	2.689	2.604	2.543	2.521	1.521
•949	2.867	2.943	2.777	2.698	2.613	2.553	2.531	1.582
1.010	2.873	2.849	2.784	2.658	2.577	2.519	2.498	1.719
1.145	2.828	2.805	2.742	2.597	2.518	2.462	2.442	1.877
1.302	2.763	2.740	2.679	2.528	2.452		2.378	2.059
1.481	2.688	2.666	2.607	2.408	2.337	2.287		2.381
1.799	2.558	2.537		2.323	2.255	2.207		2.631
2.046	2.467	2.447	2.393	2.231	2.167	2.122	2.106	
2.321	2.368	2.349	2.298	2.147	2.085	2.042	2.027	
2.624	2.280	2.262	2.212	2.072	2.012	1.970		3.552
2.955	2.203	2.185	2.136	2.005	1.947	1.906		3.914
3.313	2.134	2.116	2.068 1.983	1.921	1.863	1.823		4.512
3.904	2.048	2.031		1.876	1.818	1.778		4.948
4.334	2.004	1.987	1.938	1.839	1.781			5.412
4.793	1.970	1.958	1.902 1.875	1.811		1.711		5.906
5.281	1.944	1.925		1.790	1.729			6.430
5.798	1.925	1.907	1.837	1.770			1.650	7273
6.630	1.911	1.891		1.763		1.656	1.641	7.872
7.222	1.908	1.888		1.761		1.651	1.636	8.502
7 • 844	1.910	1-889		1.763		1.651	1. 635	9.163
8.497	1.916	1.895		1.768	1.700	1.653	1.637	9.855
9.181	1.926	1.904		1.776	1.706	1.658	1.642	10.579
9.896	1.938	1.915		1.792	1.719	1.670	1.653	11.728
11.031	1.960	1.937			1.730	1.680	1.663	12.537
11.830	1.977	1.953 1.970		1.819	1.742	1.691	1.673	13.381
12.654	1.995			1.833	1.755	1.703	1.685	14.263
13.534	2.013	1.987			1.769	1.715	1.697	15.183
14.443	2.031	2.005		1.870	1.789	1.735	1.716	16.628
15.870	2.057	2.031			1.802	1.748	1.729	17.629
16.860	2.074	2.047 2.063		1.899	1.815	1.760	1.741	18.662
17.879	2.090	2.078		1.912	1.828	1.772	1.753	19.725
18.930	2.105	2.092		1.924			1.764	20.820
20.011	2.119	2.104		1.936	1.851	1.794	1.775	21.945
21.123	2.132	2.122		1.952	1.866	1.809	1.790	23.693
22.848	2.150	2.132		1.962	1.875	1.818	1.799	24.897
24.037	2.161			1.971	1.884	1.826	1-807	26.133
25.258	2.170			1.979	1.892	1.834	1 815	27.401
26.511	2-179			1.986	1.899	1.841	1:0822	28.702
27.796	2.187			1.997	1.909	1.851	1.831	30.715
29.784	2 <u>-198</u> 2-204			2.003	1.915	1.857	1.837	32.099
31.151				2.008	1.920	1.862	1-842	33.517
32.551	2.210			2.014	1.925	1.867	i • 847	34.969
33.986	2.216 2.221	_		2.018	1.930	1.871	1.851	36.457
35.456	2.225		_	2,023	1.934	1.875	1-855	37.982
36.961	2072	- C++2						

MAC	H NO =	5.00	CONE	ANGL	E =	9.00	) /	ANGLE	OF	ATT	ACK =	1.00
			D EDI	EE-STI	DEAM	A <b>T</b>	DI.	ANE	ANGL	FC		
L/RN	0.	30.		60.	8648 91	AT	12		150		180.	SZRN
27 (11	•	004	•	00.	,	•	16,	•	100	•	100	571(1)
39.288	2.231	2.202	2.	126	2.02	?9	1.9	40	1.88	1	1.861	40.337
48.887	2.235	2.206	2.:	129	2.0	32	1.9		1.88	4	1.864	41.956
42.525	2.238	2.209		133	2.0		1.9		1.88		1.867	43.614
44.203	2.241	2.213		136	2.0		1.9		1 89		1.870	45.314
45.924	2.244	2.215		139	2.0		1.99		1.89		1.873	47.056
47.688	2.247	2.218		141	2.0		1.99		1.89		1.875	48.842
50.421	2.250	2.221		145	2.04		1.99		1.89		1.879	51.609
52.304 54.238	2 • 252 2 • 254	2 • 22 3 2 • 22 5		147 149	2.09		1.90		1.90		1.881	53.515 55.473
56.225	2.255	2.227		151	2.0		1.90		1.90		1.884	57.485
58.267	2.257	2.228		152	2.09		1.9		1.90		1-886	59.553
61.442	2.258	2.230		155	2.0		1.9		1.90		1.888	62.767
63.635	2.259	2.231		156	2.0!		1.9		1.91		1.890	64.987
65.892	2.260	2.232		157	2.09		1.9		1.91		1.891	67.273
68.216	2.261	2.233		158	2.00	52	1.97		1.91		1.892	69.626
70.610	2.261	2.234	2.:	159	2.06	53	1.97	74	1.91	4	1.893	72.050
73.076	2.252	2.234		159	2.00		1.9		1 • 91		1.894	74.547
76.916	2.263	2.235		160	2.00		1.97		1.91		1.896	78.434
79.573	2.263	2.235		161	2.00		1.9		1.91		1.897	81.124
82.311	2.263	2.236		161	2.08		1.97		1.91		1.897	83.897
85-133	2.264	2.236		162	2.00		1.9		1.91		1.898	86.754
88.042 92.575	2.264	2.236		162	2.00		1.97		1.91		1.899	89.700
95.713	2•264 2•265	2•237 2•237		163 163	2.08		1.9		1.92 1.92		1.899	94•288 97•466
98.949	2.255	2.237		163	2.06		1.9		1.92			100.742
102.285	2.265	2.238		164	2.00		1.98		1.92			104.120
105.725	2.265	2.233		164	2.00		1.9		1.92			107.602
109.271	2.266	2.238		164	2.00		1.9		1.92			111.193
114.880	2.266	2.238		165	2.07		1.9		1.92			116.790
118,629	2.266	2.238		165	2.0		1.9		1.92			120.668
122.579	2.266	2.239		165	2.07		1.98		1.92			124.666
126.652	2.266	2.239	2.:	165	2.07	70	1.9		1.92		1.902	128.790
130.853	2.266	2.239	2.	165	2.07	1	1.9	33	1.92	3	1.902	133.043
137-40-2	2.267	2.239		165	2.07		1.9		1.92			139.674
141.940	2.267	2.239		166	2.0		1.9		1.92			144.269
146.521	2.267	2.239		166	2.07		1.9		1.92		•	149.008
151.449	2.267	2.239		166	2.07		1.9		1.92			153.896
156.428	2.267	2.239		166	2.07		1.9		1.92			158.938
161.565 169.574	2.267	2.239		166	2.07		1.9		1.92			164.138
175.125	2•267 2•267	2.240 2.240		166	2.07		1.9		1.92			172.248
180.850	2.267	2.240		166 166	2.07		1.9		1.98 1.98			177.868 183.664
185.756	2.267	2.240		166	2.07		1.9		1.92			189.644
192 • 848	2.267	2.240		166	2.07		1.9		1.92			195.812
202.349	2.267	2-240		166	2.0		1.9		1.92			205.431

	MACH	NO =	10.00	CONE	ANG	_E =	9.00	ANGLE	0F	ATTAC	< =	1.00
			9.1	D E0		TOEA	M AT	PLANE	ANGL	FS		
1.75	. N.1	0.	30.	ר ז	60.		90.	120.	150		180.	SZRN
L/R	CIN	U •	30 •		00•		<b>50 •</b>	1200	4,50		• •	-
. 84		9.861	9.773	q.	536	9.	219	8.911	8.69	2 8	613	1.414
.94		9.568			246		934	8.630	8.41		.336	1.512
1.07		9.340			035		739	8.452	8.24		.173	1.643
1.30		8.778			493		217	7.949	7.75		.590	1.885
1.59		8.153			891		638	7.394	7.22		.158	2.171
1.91		7.509			269		038	6.816	6.66		.603	2.503
2.29		6.872			653		443	6.243	6.10		.053	2.883
2.72		6.297			093		898	5.715	5.58	5 5	.541	3.315
3.19		5.787			594		412	5.241	5.12	23 5	.081	3.798
3.72		5.349			162	4.	987	4.824	4.71	. 2 4	- 67.3	<b>\$.333</b>
4.30		4.986			801	4.	629	4 • 47 0	4.36	51 4	<ul><li>323</li></ul>	
4.9		4.693			507	4.	335	4.177	4.08	59 4	.032	
5.60		4.462			. 272	4.	098	3.938	3.83		• 793	
6.3		4.284			.088	3.	989	3.746	3.63		•599	
7.0		4.150		3	94.7	3.	762	3.594	3.48		• 443	
7.87		4.054		3	842	3.	650	3.476	3.36		.320	
8.69		3.989		3	.766	3.	566	3.386	3.26		.224	
9.5		3.951		3-	.716	3.	507	3.318	3.19		•150	
10.4		3.936	3.868	3	. 688	3.	467	3. 2.7-0	3.13		• 095	
11.33	36	3.940	3.868	3	.678	3∙	445	3.238	3.10		• 055	
12.2		3.961	3.884	3	. 683		438	3.221	3.07		.029	
13.2	0₌7⁻	3.996	3.914	3:	-702		443	3.215	3.00		.014	
14.1		4.043	3.957	3	. 732		459	3.219	3.06		.009	
15.1		4.100			.772		485	3.232	3.09		.012	
16.1	45	4.156	4.059		-820		518	3.253	3.0		.022	
17.1		4.238			875		558	3.280	3.09		.038	
18.1		4.316			935		603	3.312	3.13		• 050	
19.2		4.397			• 000		653	3.349	3.1		086	
20.2		4.481			• 067		706	3.390	3.1		•116	
21.3		4.566			.137		762	3.434	3.2		.149	-
22.3		4.651			.208		820	3.479	3.2		185	
23.4	_	4.735			.279		678		3.2		• 222	
24.5		4.818			• 350		938	3.575	3.3		261	
25.6		4.898			.420		997	3.625	3.3		302	
26.8		4.974			. 487		055	3-67-4	3.4		342	
27.9	-	5.048			• 553		112	3.722	3.4		. 383	
50.0		5.11.7			616		168	37.7.0	3.5		424	
30.2		5.182			676		221	3 • 81=7	3.5		3.465 3.505	
31.3		5.244			733		273	3.863	3.5		5.544	
32.5		5.301			787		322	3.908	3.6 3.6		5 • 5 8 3	
33.7		5.354			838		370	3.950 7.994	3.7		620	-
35 • 0		5.404			886		415	3.991 4.031	347		656	_
36.2		5.449			931		457	4.069	3.7		3 • 691	
37.5		5.490			974		.498 577		3.8		3 • 72 <u>5</u>	
38.8	48	5.527	7 5.386	) 5	013	4	537	4.105	3.0	C T (	10165	, 0,0001

MAC	H NO =	10.00	CONE ANGL	E = 9.0	O ANGLE	OF ATT	ACK =	1.00
		P /	P-FPEE-ST	REAM AT	PLANE	ANGLES		
L/RN	ŋ.	30 •	60•	90•	120 •	150 •	180.	S/RN
CAM	3.4	,,,,	***					
39.739	5.549	5.409	5.038	4.561	4.128	3.843	3.747	40.794
41.110	5.578	5.441	5.073	4.596	4.•.162	3.876	3.779	42.183
42.526	5.501	5.467	5.105	4.630	4.194	3.907	3.809	43.615
43.990	5.620	5.489	5.133	4.661	4.225	3.936	3.839	45.098
45.509	5.632	5.506	5.158	4.690	4.254	3.965	3.867	46.636
47.088	5.640	5.517	5.178	4.717	4.282	3.992	3.894	48.235 49.901
48.734	5.643	5.524	5.195	4.741	4.308	4.018	3.920	51.641
50.452	5.642	5.526	5.206	4.762	4.333	4.043	3•945 3•969	53.461
52.250	5.639	5.525	5.214	4.781	4.376	4.067	3.992	55.369
54.135	5.635	5.522	5.217	4.795	4.377	4.089	4.013	57.373
56.114	5.629	5.518	5.217	4.806	4.395	4.110	4.033	59.479
58.194	5.624	5.513	5.215	4.814	4.412	4.129	4.051	61.697
60.385	5.619	5.508	5.211	4.817	4.425	4.147 4.162	4.058	64.037
62.696	5.514	5.504	5.208	4.818	4.436	4.175	4.082	56.507
65.136	5.610	5.499	5.204	4.817	4.443	4.186	4.095	69.090
67.686	5.606	5.496	5.201	4.815	4•447 4•449	4.193	4.104	71.785
70.348	5.603	5.493	5.198	4.813	4.449	4.198	4.111	74.602
73.130	5.600	5.490	5.195	4.811 4.809	4.447	4.200	4.115	77.525
76.018	5.597	5.487	5193	4.807	4-446	4.200	4.116	80.553
79.008	5.595		5 191	4.806	4,-44.4	4.199	4.116	83.689
82.106	5.594		5•189 5•188	4.805	4.443	4.197	4.114	
85.314	5.592		5186	4.804	4.443	4.196	4.113	90.303
88.638	5.591		5.•185	4.893	4.442	4.195	4.111	93.788
92.081	5.591		5.184	4.802	4.441	4.194	4.109	
95.647	5.591 5.591		5.184	4.801	4.441	4.193		101.140
99.342	5.592			4.801	4.441	4.192		105.014
103.168	5.593		5.183	4.800	4.440	4.192		109.027
111.238	5.594			4.800	4.440	4.192		1134184
115.490	5.595			4.800	4.448	4.192		117.489
119.895	5.595		-	4.806	4.440	4.192		121.949
124.457	5.596			4.800	4.440	4.191	-	126.568
129.183	5.597		5.186	4.800	4.440	4.191		131.353
134.078	5.598	_		4.800	4.440	4.191		136.309
139.148	5.598			4.801	4.440	4.191		141.442
144.400	5.599			4.801	4.440	4.191		146,760
149.840	5.600	_	5.188	4.802	4-440	4.191		152.267
155 - 475	5.600			4.802	4.441	4.192		157.973
161.312	5.601	5.488		4.802	4.441	4.192		163.882
167.358	5.601			4.803	4.441	4.192		170.004 176.345
173.621	5.602			4.803	4.442	4.193		182.914
180.109	5.602			4. 803	4.442	4.193		189.719
186.831	5.602			4.804	4.443	4.193 4.194		196.769
193.793	5.60			4.814	4.443	4.194		204.072
201.007	5.60	3 5.490	5.190	4.804	4.443	40,174	40 701	C0-74016

9.00

ANGLE OF ATTACK =

CONE ANGLE =

MACH NO = 15.00

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P FREE-STREAM A-T PLANE ANGLES 90. L/RN C. 30. 60. 120. 159. 180. S/RN 21.412 21.218 19.997 . 844 20.695 19.320 18.838 18.664 1.414 .997 20.557 20.371 19.870 19.202 18.553 18.090 17.923 1.569 1.216 19.331 19.158 18.693 18.074 17.474 17.048 16.894 1.790 1.572 17.451 17,296 16.883 16.333 15.893 15.428 15.292 2.152 2.008 15.502 15.364 15.000 14.055 14.517 13.731 13.613 2.592 2.526 13.527 13.648 13.203 12.779 12.378 12.098 11.998 3.117 3-131 12.053 11.945 11.649 10.909 11.267 10.660 19.572 3.730 3.822 10.724 10.621 10.342 9.985 9.654 9.427 9.347 4.429 4.595 9.676 9.576 9.301 8.955 8.635 8.418 8.343 5.212 5.444 8.775 8.877 8.499 8.152 7.835 7.621 7.547 6.072 6.352 8.283 8.177 7.894 7.540 7.218 7.002 6.928 7.001 7.338 7.852 7.741 7.446 7.079 6.527 7.989 6.748 5.451 7.550 7.433 8.363 7.121 6.738 6.164 6.086 9.027 6.393 9.159 7.391 7.268 6.943 6.544 6.187 5.951 5-870 9.832 10.936 5.729 5:• 645 10-248 7.254 7.122 6.775 6.352 5.976 11-365 7.187 7.045 6.673 6.223 5.825 5.564 5.476 12.066 7.178 7.024 5.721 6.625 6.143 5.446 5.353 13.218 6.105 7.215 7.050 6.621 5.656 5.365 5.267 14.385 7.292 7.113 6.652 6.101 5.623 5-715 5-211 15.563 7.401 7.208 6.714 6.125 5.616 5.180 5.290 16.747 7.536 7.329 6.800 6.171 5.631 5.285 5.169 17.934 7.694 7.472 6.907 6.237 5.553 5.298 5.175 19.121 7.634 7.031 6.318 7.872 5.711 5.325 5-196 20.304 8.067 7.812 7,170 6.413 5.770 5.353 5.228 21.481 8.276 8.005 7.322 6.519 5.840 5.269 5.412 22.651

12.502 13.655 14.818 15.988 17.161 18-333 19.501 20.664 21.819 22.965 8.496 8.208 7.485 6.635 5.919 5.469 5.320 23.811 23.848 8.666 8.366 7.613 6.728 5.984 5.517 5.362 24.675 24-946 8.897 8.581 7.789 6.857 5.075 5.586 5.424 25.817 9.130 8.799 7.970 26.064 6.992 6.172 5.660 5-490 26.949 27-172 9.361 8.153 7.131 9.017 6.274 5.739 5.562 28.071 28: 271 9.588 9.233 8.337 7.273 6.379 5.822 5.637 29.183 29-362 9.809 9.444 8.520 7.416 6.487 5.907 5.716 30.288 30.447 10.021 9.648 7.561 8.700 6.597 5.996 5.797 31.387 31.528 10.223 9.845 8.876 7.704 6.709 6.986 5.881 32.481 32.607 10.414 10.031 9.047 7.847 6.821 5.966 33.574 6.179 33-687 10.531 10.208 9.213 7.987 6.934 6.272 5.053 34.667 34.770 10.755 10.372 9.371 8.125 7.047 6.367 35.763 6.142 35.860 10.902 6.452 10.523 9.522 8.260 7.159 6.231 36.867 36.959 11.033 10.660 37.980 9.665 8.391 7,270 6.558 6.321 37-792 11.119 10.752 9.765 8.487 7.353 6.630 6.389 38.523 38-916 11.218 10.862 9.891 8.611 7.462 6.726 5.480 39.961 40-060 11.298 10.954 10.005 8.730 7.570 6.572 6 • 822 41.119 41.227 11.359 11.029 10-107 8.843 7.676 6.917 6.663 42.300 42.421 11.401 8.950 7.012 11.086 10.196 7.779 6.755 43.509 11.426 43-646 11.126 9.050 7.880 7.106 10.271 5.846 44.750

MA	CH NO =	15.00	CONE ANGL	E = 9.0	0 ANGL	E OF ATT	TACK =	1.00
			P FREE-ST	TREAM AT	PLANE	ANGLES		
L/RN	0 •	30.	60•	90•	120•	150.	180.	S/RN
44.908	11.436	11.150	10.331	9.142	7.977	7.199	6.936	46.027
46.211	11.431	11.159	10.376	9.224	8.071	7.291	7.026	47.346
47.559	11.416	11.154	10.407	9.296	8.160	7.381	7.115	48.712
48.957	11.391	11.139		9.357	8.244	7.468	7-202	
50.409	11.360	11.115	10.427	9.406	8.321	7.553	7.287	
51.917	11.324	11.085	10.419	9.442	8.391	7.633	7369	
53.086	11.296	11.060	10.408	9.461	8.437	7.690	7.429	
54.701	11.257	11.024	10.386	9.476	8.491	7.761	7504	
56.373	11.219	10.988	10.360	9.479		7.825	7-573	
58.108	11.184	10.952	10.330	9.474	8.567	7.881	7 - 635	
59.902	11.152	10.919	10.299	9.461	8.589	7.928	7.691	
61.752	11.124	10.889	10.269	9.444	8.601	7.966	7.737	
63.649	11.100	10.864		9.423	8.605	7.994	7774	
65.590	11.081	10.842	10.214	9.400	8.601	8.013	7.802	
67.579	11.065	10.824		9.377	8.591	8.023	7.821	
69.623	11.053	10.809		9 • 355	8.578	8.026	7.832	
71.728	11.044	10.798	10.154	9.334	8.562	8.022	7.836	
73.901	11.038	10.790	10.140	9.315	8.545	8.014	7-833	
76.152	11.034	10.784		9.297	8.528	8.002	7-825	
77.895	11.033	10.782		9.286	8.515	7.991	7 - 817	
80.301	11.034	10.780		9.273		7.976	7 - 803	
82.810	11.035	10.780		9.262	8 • 482	7.959	7.787	
85.433	11.033	10.782		9.253		7.943	7 - 770	
88.182	11.042	10.785		9.246	8 • 456	7.927	7753	
91.072	11.047	10.789		9.241		7.912	7-737	
94.118	11.052	10.794	10.110	9.237		7.899		
97-337	11.057	10.798	10.113	9.236	8.429	7.887		
100.747	11.063	10.803	10.117	9.236		7.877		102.563
104.369	11.058	10.808	10.121	9.237		7.868		106.230
108.225	11.072	10.813	10.125	9.239		7.861		110.133
112.338	11.077	10.818	10.130	9.243	8.417	7.856		114.298
116.736	11.080	10.822	10.134	9.246		7.853	-	118.751
120.238	11.083	10.824	10.137	9.249	8.419	7.852		122.296
125.203	11.085	10.827	10.141	9.253	8.422	7.851		127.323
130.537	11.087	10.829	10.144	9.257	8 • 425	7.852		132.724
136.275	11.089	10.831	10.147	9.260	8.429	7.854		138.533
142.350	11.090	10.832	10.149	9.264	8.432	7.857		144.684
148.681	11.691	10.834	10.150	9.266	8 • 436	7.861		151.094
155.277	11.092	10.835	10.152	9.269	8.440	7.865		157.773
162.152	11.092	10.835	10.153	9.271	8.443	7.868		164.733
169,317	11.093	10.836	10.153	9.272	8.445	7.872		171.987
176.785	11.093	10.836	10.154	9.273	8 • 448	7.875		179.548
184.569	11.094	10.837	10.154	9.274	8.449	7.878		187.429
192.682	11.094	19.837	10.154	9.274	8.451	7.880		195.644
2.01.140	11.095	10.837	10.154	9 - 2-74	8.452	7.882		204.207
		-	• •		<del>-</del>	, <del></del>		_ , , , , , , , ,

MA	CH NO =	20.00	CONE ANG	LE = 9.	00 ANG	LE OF AT	TACK =	1.00
						44101.00		
			P FREE-S					0.4044
L/RN	0.	30•	60.	90.	126.	150.	186.	S/RN'
.844	37.581	37.240	36.316	35.085	33.891	33.041	32.734	1.414
1.063	35.364	35.046	34.188	33.046	31.939	31.150	30.864	1.636
1.380	32.195	31.907	71.134	30.106	29.112	28.406	28.151	1.956
1.881	27.856	27.608	26.950	26.077	25.240	24.651	24.437	2.464
2.373	24.479	24.264	23.684	22.923	22.200	21.695	21.514	2.962
3.106	20.846	28.657	20.145	19.483	18.861	18.431	18.278	3.705
7.971	17.936	17.761	17.285	16.679	16.117	15.734	15.599	4.580
4.958	15.774	15.602	15.135	14.547	14.008	13.643	13.517	5.579
5.827	14.499	14.324	13.852	13.261	12.724	12.362	12.237	6.459
6.996	13.351		12.677	12.069	11.519		11.025	7.643
8.240	12.578	12.383	11.864	11.225	10.652	10.271	10.141	8.902
9.277	12.165	11.957	11.409	10.737	10.140	9.745	9.610	9.952
10.611	11.846		11.026	10.306	9.671	9.254	9.112	11.302
11.974	11.698		10.805	10.028	9.348	8.904	8.754	
13.357	11.683		10.798	9.866	9.135	8.662	8.502	
14.469	11.746		10.700	9.803	9.027	8.528	8.360	
15.860	11.900			9.789	8.955	8.421	8.242	
17.244	12.122	11.772	10.882	9.832	8,937	8.367	8.176	
18.343	12.343		11.017	9.901	8.954	8.354	8.154	
19.701	12.669			10.021	9.007		8.156	
21.037	13.044			10.175	9.090	8.410	8.185	
22.349	13.462			10.357	9.197		8.236	
23.379	13.822			10.522			8.290	
24.643	14.296				9.441			
25.880	14.787			10.992			8.469	
26.851	15.187			11.199			8.555	
28.043	15.689			11.470	9.921		8.672	
29.213	16.184	-	13.759	11.750	10.114	9.122	8.799	
39.364 31.273	16.666	-	14.146	12.038	10.316	9.273 9.399	8.933 9.047	
32.397	17.037 17.479	*	14.454 14.833	12.272 12.566	10.483 10.697	9.563	9.194	
33.512	17.890		15.204	12.862	10.916	9.733	9.348	
34.620	18.266	17.517	15.562	13.157	11.139	9.908	9.508	35.611
	18.538		15.837		11.320			
36.611	18.841	18.114	16.164	13.681	11.548	10.032	9.807	37.627
37.721	19.099		16.470	13.964	11.778	10.423	9.980	38.751
38.616	19.272		16.693	14.185	11.962	10.575	10.121	39.657
39.745	19.446		16.958	14.453	12.192	10.769	10.301	40.800
40.891	19.575		17.190	14.710	12.422	10.966	10.485	41.960
42.057	19.660			14.954	12.650	11.165	10.672	43.141
43.009	19.697		17.525	15.137	12.830	11.325	10.825	44.105
44.227	19.710		17.663	15.350	13.051	11.528	11.018	45.338
45.480	19.688			15.542	13.267	11.731	11.213	46.606
46.510	19.648			15.679	13.433	11.892	11.370	47.649
47.835	19.577		17.862	15.827	13.631	12.093	11.567	48.991

	MACH	NO =	20.00	CONF	ANG	LE =	g	.00	A	NGLE	OF.	AT	TACK =	1.00
			D /	p FR	EE - 6	TOE A	м	AT	PLĄ	ME	ANG			
L/F	N	0.	30.		60.		90.		120		15		4.00	C/DN
L / (		0 •	201	'	00-	7	<b>50 •</b>	1	TCO	•	10	<b>U</b> •	180.	S/RN
49.20	7 19	2.486	19.075	17.	869	15.9	947	13	.81	7 1	2.2	A G	11.762	50.380
50.62		2.381	18.988	17.		16.			.98		2.4		11.953	51.812
51.78		2.292	18.908	17.		16.0			.10		2.6		12.102	52.993
53.29		2.180	18.802	17.		16.			.23		2.7		12.281	54.518
54.84		2.071	18.694	17.		16 - :			.34		2.9		12.448	56.987
56.11		989	18.611	17.		16.			.41		3.0		12.573	57.377
57.75		8.896	18.512	17.		16.0			.48		3.1		12.714	59.040
59.44		8.816	18.425	17.		16.0			.51		3.2		12.838	60.743
61.17		3.749	18.349	17.		15.9			.53		3.3		12.941	62.501
62.59		3.705	18.297	17.		15.9			.53		3.4		13.009	63.937
64.40		3.662	18.245	17.		15.			.51		3.4		13.074	65.764
66.24		3.630	18.205	17.		15.7			.48		3.4		13.118	67.628
67.74		8.613	18.180	17.		15.			.44		3.4		13.139	69.144
69.64		599	18.159	17.		15.6			.39		3.4		13.150	71.974
71.59		593	18.146	16.		15.9			.34		3.4		13.144	73.048
73.59		592	18.140	16.		15.5			.28		3.4		13.125	75.373
75.23		3.594	18.139	16.		15.			. 24		3.3		13.101	76.734
77.34		601	18.142	16.		15.4			.18		3.3		13.063	78.868
79.52		611	18.149	16.		15.4			.13		3.2		13.019	81.972
81.77		623	18.158	16.		15.4			.09		3.2		12.969	83.356
83.64		3.634	18.167	16.		15.4			. 05		3.2		12.928	85.246
86.06		3.649	18.180	16.		15.3			.02		3.1		12.875	87.595
88.58		664	18.195	16.		15.3			.99	-	3.1		12.823	90.251
90.69		677	18.207	16.		15.3			. 97		3.0		12.783	92.382
93.43		693	18.222	16.		15.3			. 95		3.0		12.737	95.162
96.32		7.08	18.238	16.		15.3			.93		2.9		12.695	98.086
99.37		722	18.252	17.		15.3			. 92		2.9			161.171
101.93		732	18.263	17.		15.4			. 92		2.9			103.766
105.31		3.743	18.275	17.		15.4			.92		2.9			107.186
108.90		3.752	18.285	17.		15.4			. 92		2.9			110.821
111.94		3.758	18.292	17.		15.4			. 93		2.9			113.901
115.98		763	18.299	17.		15.4			. 94		2.9			117.987
120.30		3.767	18.304			15.4				4 1				122.364
124.94		3.770	18.308	17.		15.4			. 96		2.9			127.362
128.91		3.770	18.309	17.		15.4		_	. 97		2.9			131.077
134.21		3.771	18.310	17.		15.4			. 98		2.9			136.449
139.94		3.770	18.310	17.		15.5			.00		2.9			142.252
144.87		769	18.309	17.		15.5			.01		2.9			147.238
151.49		3.767	18.307	17.		15.5			.02		2.9			153.944
158.69	2 18	7.65	18.305	17.		15.5			.02		2.9			161.229
166.52		37.63	18.303	17.		15.5			.03		3 - 3			169.160
173.29	16 18	762	18.302	17.		15.5			.03		3.0			176.916
182.27		762	1.8.301	17.		15.5			.04		3.0			185.109
191.70	6 18	3.763	18.302	17.		15.5			. 04		3.0			194.656
201.60	6 18	764	18.303	17.	081	15.5	510	14	• 04		3.0			204.679

MA	/CH NO =	25.00	CONE AN	NGLE =	9.00	ANG	LE OF	ATTACK =	1.00
		D /	P FREE	CTDEAM	AT F	PLANE	ANGL	FC	
L/RN	ŋ.	30.	60			120 •	150		SZRN
E / KI	-, •	, U •	09.	90	•	1200	190	. 100.	SYKH
.844	58.368	57-834	56.398	54.48	18 52.	634	51.30	5 50.826	1.414
1.134	53.705	53.220	51.917			500	47.30		
1.467	48.577	48.142	46.97			937	42.87		
1.991	41.778	41.406	40.417			858	36.97		
2.788	34.303	33.995	33-169			070	30.36		
3.595	29.268	28.993	28.24			394	25.78		
4.528	25.409	25.145	24.428			686	22.11		
5.795	22.150	21.882	21.162			442	18.89		
6.953	20.312	20.034	19.288			528	16.97		
8.183	19.057	18-761	17.979			141	15.56		
9.466	18.236	17-917	17.076			138	14.53		
11.055	17.676	17.322	16.40			304	13.66		
12.403	17.476	17.089	16.087			835	13.15		
13.753	17.459	17.036	15.946			520	12.79		
15.395	17.621	17.150	15.947			297	12.51		
16.746	17.875	1-7362	16.057		-	209	12.37		
18.081	1-8 - 222	17-661	16.246	-		189	12.30		
19.395	18.655	18.041	16.509			223	12.28		
20.938	19.280	18.595	16.898			321	12.31		21.759
22.192	19.878	19.139	17.284			444	12.37		
23.416	20.536	19.722	17.722			598	12.46		
24.844	21.386	20.493	18.302			819	12.60		
26.000	22.131	21.173	18.823			031	12.74		
27.128	22.896	21.876	19.37			263	12.89		_
28.446	23.821	22.734	20.052			567	13.10		
29.518	24.586	23.450	20.633			836	13.30		
30.569	25.333	24-157	21.219			120	13.50		
31.501	26.053	24.846	21.806			415	13.71		
32.820	25.858	25.639	22.502	_		783	13.99		
33.822	27.498	26.252	23.069		-	099	14.22	_	
34.815	28.076	26.844	23.620			422	14.47		
35.999	28.692	27.481	24.253			818	14.77		37-008
36.984	29.137	27.955	24.751	-				0 14.357	
37.969	29.517	28.374	25.219			495	15.31		
38.958	29.831	28.734	25.652	21.50	-	838	15.58		
40.155	30.119	29.086	26.121	21.99	18.	254	15.92		
41.165	30.288	29.314	26 • 465			601	16.21		
42.190	30.395	29.481	26.769			94.7	16.51	-	
43.446	30.445	29.604	27.062	23.17		360	16.87		44.548
44.519	30.426	29.644	27-255	23.50		700	17.18		45.633
45.618	30.358	29.632	27.397			032	17.49		46.746
46.745	30.247	29.572	27.488	24.05	6 20.	353-	17.80		47-887
48.140	30.067	29.444	27532	24.32		720	18.17		49.299
49.334	29.891	29.301	27-51-6	24.49	5 21	005	18.47		50:•509
50.560	29.699	29.133	27.458		-	268	18.76		

MA	7CH NO =	25.00	CONE	ANGL	E =	9.	00	ANG	LE	0F	AT	TACK =	1.00
		p /	P FRE	E-9T	DEAM		T P	LANE		NGL	EC		
L/RN	0.	30.		0.0	9(			20.		150		180.	SZRN
LZKI	0 •	50.		•	,	•	_	<b>LU</b> •		100	•	1004	32 1(11
52,080	29.461	28.911	27 • 3	39	24.7	33	21.	548	10	.10	16	18.242	53.289
53.38-2	29.266	28.720			24.7			749		37		18.519	
54.713	29.083	28.533	27.0		24.77			91-6		6.1		18.781	
56.356	28.883	28.322	26.8		24.7			071		. 87		19.072	57.618
57.769	28.736	28.161	26.6		24.6			162		. 07		19.292	59.048
59.210	28.611	28.019	26.5		24.5			217		. 23		19.487	
60.679	28.503	27.898	26.3		24.43	35		239		• 36		19.655	
62.485	28.412	27.779	26.2		24.21			225		. 48		19.819	63.823
64.023	28.353	27.703	26.0	79	24.1	+6	22.	184	20	.54	9	19.924	65.381
65.583	28.313	27.646	25.9	74	24.05	L3	22.	121	20	.58	4	19.998	66.961
67.491	28.283	27.599	258	72	23.86	53	22.	023	20	.59	1	20.049	68.891
69.107	28.272	27.575	25.8	07	23.74	48	21.	928	20	. 56	9	20.062	70.528
70.749	28.271	27.564	25.7	57	23.64	44	21.	827	20	-58	7	20.052	72.191
72.423	28.277	27.561	25.7	21	23.59	53	21.	7-23	20	.46	7	20.020	73.886
74.478	28.292	27.568	25.6	95	23.46	50	21.	599	20	• 37	8	19.957	75.966
76.234	28.309	27.580	25•-€	84	23.39	38	21.	500	20	. 29	3	19.888	77.744
78.034	28.331	27.597	25.6		23.34	+8		406		.20		19.808	79.567
80.259	28.360	27.621	25.06		23.30			304		. 08		19.702	81.819
82.174	28.386	27.644	25.6		23.27			22-8		• 99		19.608	83.757
84.148	28.414	27.670	25.7		23.26			162		89		19.512	85.756
86.188	28.442	27.697	25.7		23.29			107		81		19.416	87.822
88.731	28.476	27.730	25.7		23.29			053		-71		19.30.6	90.397
96.938	28.503	27.758	25.7		23.29			019		63		19.220	
93.233	28.529	27.785	25.8		23.26			994		.57		19.141	
96.114	28.558	27.815	25 • 8		23.28			976		.50		19.056	97.871
98.631	28.578	27.838	25.8		23.30			969		• 46			100.420
101.265	28.596	27.859	25.8		23.3			969		• 43			103.087
104.596	28.614	27.880	25.9		23.39			976		- 40			106.459
107.528	28.625	27.894	25.09		23.37			987		- 38			109.428
110.618	28.634	27.904	2.5 • 9		23.40			003		- 38			112.557
113.881	28.639	27.912	2.5 • 9		23.42			021		38			115.860
118.048	28.643	27.919	25-9		23.49			04.7		39		_	120.079
121.753			25.9		23.41								123.830
125.693 130.763	28.645	27.922	-26 • 0		23.49			094 123		42			127.819
135.305	28.643 28.640	27.921 27.919	26.0 26.0		23•5( 23•5:			146		. 44			132.953 137.551
148.167	28.636	27.916	26.0					167		47		_	
145.381	28.632	27.910	26.0		23•58 23•58			185		1•49 1•52			142.474 147.753
152.158	28.627	27.912	25.9		23•5. 23•5.		-	202		· 55			154.614
158.285	28.524	27.903	25.9		23.50 23.50			213		) • 57			160.818
164.981	28.621	27.899	25.9		23.5			220		3.59			167.516
1-73 - 558	28,618	27.896	25.9		23.5			225		61			176.281
181.441	28.618	27.895	25.9		23.58			226		62			1.84.262
190.001	28.618	27.894	25.9		23.51			225		63			192.929
201.257	28.619	27.895	25.9		23.5			222		.64			204.325

MACH NO = 30.00CONE ANGLE = 9.00 ANGLE OF ATTACK = 1.00 P / P FREE-STREAM AT PLANE ANGLES L/RN 0. 30. 60. 90. 120. 150. S/RN 180. 80.951 .844 83.775 83.010 78.203 75.528 73.621 72.934 1.414 1.133 77.042 76.345 74.473 71.980 69.568 67.853 67.232 1.707 1.561 67.687 67.082 65.465 63:317 61.247 59.779 59.246 2.140 2.232 56.026 55.530 54.205 52.456 50.790 49.623 49.202 2.820 2. 933 47.500 47.071 45.913 44.411 42.997 42.016 41.666 3.529 3.944 39.38i 38.997 37.953 36.625 35.394 34.553 34.259 4.553 5.128 33.631 33.255 32.239 30.962 29.794 29.005 23.732 5.752 6.228 30.315 29.930 28.896 27.608 26 - 44 0 25.656 25.387 6.866 7.655 27.634 27.225 26.13/ 24.794 23.588 22.785 22.510 8.310 25.963 9.167 25.519 24.348 22.916 21.642 20.802 20.515 9.841 25.127 10.471 24.645 23.384 21.856 20.508 19.625 19.325 11.161 12.068 24.615 24.089 22.691 21.022 19.567 18.622 18.302 12.778 24.499 23.904 22.370 20.542 18.962 17.945 13.680 17.602 14.411 17.565 15.024 24.624 23.975 22.312 20.340 18.649 17.201 15.771 24.976 24.257 20.275 18.442 16.624 22.429 17.276 16.886 17.390 25.518 22.706 18.198 24.719 20.356 18.375 17.123 16.705 18.984 19.484 26.105 25.229 23.042 20.513 18.400 17.074 16.632 20.286 26.958 20.989 25.980 23.561 20.792 18.508 17.088 16.618 21.810 22.449 27.957 26.868 24.193 18.689 17.168 21.160 16.666 23.289 23.863 29.077 27.873 24.925 18,931 17.301 21.606 16.767 24.720 25.005 30.084 28.781 25.600 22.030 19.174 17.448 16.885 25.876 26.334 31.352 29.934 26.472 22.592 19.589 17.661 17.061 27.222 32.660 27.621 31.133 27.398 23:204 19.886 17.910 17.272 28.525 28.663 33.759 32.150 28.198 23.744 20.227 18.142 17.469 29.580 29.881 35.066 33.372 29.182 24.424 20.665 18.445 17.731 30.813 25.129 31 - 069 36.337 34.575 36.177 21.129 18.772 18.016 32.016 32-038 37.352 35.549 31.005 25.732 21.534 19.062 18.270 32.997 33 - 181 38.498 36.667 31.989 26.468 22.039 19.428 18.592 34.154 39.552 34.306 37.715 32.949 27.213 22.561 19.812 18.933 35.293 40.348 38.525 23.008 35.233 33.723 27.836 20.145 19.229 36.232 41.196 36.338 39.409 34.613 28.582 23.557 20.561 19.601 37.350 37.438 41.920 40.190 35.450 29.321 24.117 20.991 19,988 38.464 38.354 42.425 40.757 29.928 24.592 36.102 21.362 20.323 39.392 39.458 42.912 41.331 30.640 25.168 36.820 21.820 20.749 40.510 40.572 43.269 41.788 37.462 31.329 25.751 22.292 21.172 41.637 41.510 43.470 42.077 37.934 31.881 26.239 22.697 21.544 42.588 42.655 43.599 42.317 38.419 32.511 26.825 23.193 22.005 43.746 43.824 43.611 38.810 33.100 27.408 42.441 23.702 22.481 44.930 45.023 43.517 42.453 39.103 27.983 33.638 24.221 22.970 46.143 46.046 43.366 42.385 39.270 28.452 34.042 24.658 23.387 47.179 47.307 43.113 28.995 42.218 39.377 34.466 25.185 23.896 48.456 48..60.3 42.801 41.974 39.385 34.816 29.509 25.708 24.407 49.768 49.708 42.513 41.727 39.321 35.046 29.909 26.136 24.832 50.888 41.396 35.244 51.072 42.151 39.169 30.348 26.636 25.335 52.268 52.478 41.789 41.045 38.948 35.358 30.736 27.115 25.827 53.692

ANGLE OF ATTACK = 1.00 MACH NO = 30.00CONF ANGLE = 9.00 P / P FREE-STREAM PLANE ANGLES AT 180. S/RN L/RN 0. 60. 90. 120. 150 . 30 • 31.013 27.488 26.229 54.903 41.502 40.756 38.726 35.388 53.674 55.142 41.185 40.423 38.430 35.353 31.286 27.902 25.665 56.389 35.247 31.491 27.077 57.918 56.652 40.903 40.116 38.118 28.273 37.859 35-112 31.609 28.545 27.391 59.227 57.945 40.699 39.886 34.910 31.686 28.819 27.724 60.826 39.649 37.563 59.524 49.497 29.034 28.003 40.340 39.456 37.292 34.678 31.697 62.457 61.135 40.240 37.090 34.471 31.661 29.168 28.195 63.846 62.507 39.327 28.372 40.156 39.210 36.880 34.220 31.569 29.272 65.547 64.188 33.978 31.434 29.318 28.489 67.275 36.708 65.894 40.105 39.129 69.032 28.551 67.630 40.080 39.080 36.574 33.751 31.269 29.310 33.580 31.116 29.266 28.561 70.520 69.099 40.076 39.059 36.489 28.529 39.053 36.416 33.398 30.922 29.176 72.334 70.890 40.087 36.370 33.243 30.726 29.052 28.454 74.183 72.717 40.111 39.063 33.135 30.566 28.929 28.364 75.755 74.269 40.139 39.081 36.349 36.341 33.030 30.383 28.765 28.229 77.683 76.174 40.179 39.113 32.951 28.072 36.348 30.213 28.589 79.662 78-129 40.225 39.151 32.904 27.930 39.188 30.085 28.439 81.355 36.364 79.801 40.265 28.251 48.317 32.856 27.752 83.444 81.864 39.235 36.391 29.948 32.846 29.832 28.088 27.571 85.602 83.995 40.370 39.286 36.426 36.460 40.413 39.329 32.842 29.752 27.952 27.423 87.457 85 - 827 27--252 39.380 36.504 32.849 29.675 27.802 89.759 88.101 40.464 27.668 27.093 92.150 90.463 40.513 39.430 36.551 32.857 29.618 36.591 32.889 29.585 27.570 25.971 94.218 92.505 40.551 39.471 27.471 36.640 32.922 29.562 26.842 96.797 40.592 39.515 95.053 32.959 29.553 27.392 26.731 99.494 36.688 97.716 40.625 39.555 39.584 36.727 32 - 994 29.557 27.341 26.654 101.839 100.032 40.651 33.038 29.571 27.298 25.580 104.782 102.939 40.675 39.614 36.769 36.807 33.084 29.595 27.272 26.527 107.879 105.998 40.692 39.636 26.492 111.147 36.840 33.129 29.626 27.263 109.226 40.703 39.652 26.476 114.014 40.709 36.862 33.166 29.656 27.266 112.057 39.662 27.282 40.713 39.658 36.882 33 4 2 0 7 29.697 25.471 117.644 115.643 40.713 33.244 27.308 26-481 121-503 36.895 29.741 119.454 39.671 29.779 27.336 26:498 124.911 122.821 36.992 33.271 40.711 39.670 40.707 26.528 129.258 39.567 36.906 33.297 29.824 27.376 127.114 27.420 26.566 133.915 40.701 39.662 36.905 33.316 29.866 131.714 40.695 39.657 36.903 33.326 29.899 27.450 25.602 138.060 135.807 27.509 36.897 33.333 29.934 25.649 143.384 141.066 40.687 39.649 33.335 26.699 149.135 39.641 36.891 29.962 27.557 146-747 40.680 29.979 27.595 26.741 154.293 39.635 36.884 33.333 151.840 40.675 27.636 33.329 29.994 26.789 160.970 158.435 3.6 . 875 40.559 39.628 33.323 30.001 27.669 25.833 168.244 165.620 40.665 39.623 36.868 36.862 33.317 30.003 27.691 26.864 174.818 172.113 40.653 39.620 40.662 39.518 3.6.856 33.308 30.002 27.709 26.893 183.394 180.583 36-852 33.300 29.997 27.719 25.914 192.812 189.885 40.652 39.517 29.990 27.722 25.925 203.181

33.293

40.564

200.127

39.618

36.850

M	ACH NO =	3.50	CONE	ANG	E = 10	• 00	ANGLE	OF	ATTA	CK =	1.00
					TREAM -			ANGL			
L/RN	0.	30•		60•	90•		120.	150	•	180.	S/RN
									_		4 706
.826		1.822			1.734			1.65		1.637	
•926		1.804			1.715			1.63		1.617	
•981		1.826		788	1.737		. 687	1.65		1.638	
1.100		1.837		799	1.748		•699	1.66		1.651	
1.235		1.829			1.742		693	1.65		1.646	
1.385		1.816		779			.682	1.64		1.635	
1.553		1.799		763	1.715		. 658	1.63		1.622	
	1.781	1.767		732	1.685		. 640	1.60		1.596	
	1.756	1.743			1.663		•619	1.58			2.642
2.288		1.712		678	1.634		.592	1.56		1.552	
2.545		1.686		652	1.609		<b>.</b> 568	1.53		1.529	
2.823		1.665		632	1.589		. 548	1.51		1.509	
3.124		1.649		615	1.572		.531	1.50		1.492	
3.618		1.628		595	1.552		.512	1.48		1.473	•
3.978		1.618		585	1.542	1	.502	1.47		1.464	
4.361		1.611		578	1.535	- 1	.495 .490 .488	1.48	7	1.457	4.985
4.769		1.608		574	1.531	1	L-• 4 9 0	1.46	52	1.453	5.399
5.202		1.608		573	1.529	1	L•488	1.46	0	1.451	5.839
5.660		1.609		574	1.530	. 1	-489	1.48	0	1.451	6.304
6.143		1.613	1.	578	1.533	1	L.491	1.46		1.453	6.795
6.918		1.622	1.	586-	1540	1	498	1.48			7.582
	1.642	1.629	1.	592	1.546	1	1.503	1.47	24		8.140
	1.650	1.636	1.	599	1.553	1	L•510	1.48			8.725
8.648	1.658	1.645	1.	607	1.560	1	1.517				9.338
9.279	1.667						.524	1.49		1.485	
	1.675						L•532	1.50		1.492	
	1.688						L.543	1.51		1.503	
					1.595		L•550	1.58		1.510	
	1.704						L•557	1.52		1.517	
	1.712				1.609		L•564	1.53		1.523	
	1.719			665		-	L•570	1.53		1.529	
	1.725			671	1.621		L•576	1.54		1.535	
16.294		1.719		680	1.630		1.584	1.59		1.543	
17.230											18.053
18.201		1.730		690	1.648		1.594	1.56		1.552	19.039
19.208		1.734		694	1.644		1.598	1.58		1.556	20.059
20.248		1.738		698	1.648		1.602	1.57		1.560	21.115
21.322		1.742		702	1.651		1.605	1.57		1.564	22.208
22.434		1.745		705	1 • 655		1.608	1.57		1.567	23.337
24.173		1.750		710	1.659		1.613	1.58		1.571	25.103
25.381		1.753		713	1.662		1.616	1.5		1.574	
26.628		1.756		715	1.665		1.618	1.58		1.576	27.596
27.917		1.758		718	1.667		1.620	1.58		1.578	28.904
29.247		1.760		720	1.669		i-622	1.5		1.580	30 • 255
30.619	9 1.777	1.762	1.	722	1-671	. :	1.624	1.59	3	1.582	31,649

	MACH NO =	3.50	CONE	ANGL	E = 10	• 0 0	ANGLE	OF	ATTA	CK =	1.00
					REAM		PLANE	ANGL			
L/R	N 0.	30.	-(	60.	90.	:	120.	150	•	180.	S/PN
32.76	1 1.780	1.765	1.	725	1.674	1.	627	1.59	5	1.584	33.824
34.24		1.767		726	1.675		628	1.59		1.586	35.332
35.77		1.768		728	1.677		630	1.59		1.587	36.888
37.36		1.769		729	1.678		631	1.59		1.589	38.494
38.99		1.771		730	1.679		632	1.60		1.590	40.151
40.67	-	1.772		732	1.681		633	1.60		1.591	41.861
43.30		1.773		733	1.682		635	1.60		1.592	44.529
45.12		1.774		734	1.683		636	1.60		1.593	46.380
47.00		1.775		735	1.684		637	1:-60		1.594	48.290
48.95		1.776		736	1.685		638	1.60		1.595	50.263
50.95		1.776		736	1.685		638	1.60		1.596	52.300
53.03		1.777		737	1.686		639	1.60		1.596	54.405
55.17	1 1.792	1.778		738	1.687		640	1.60		1.597	56.580
58.51		1.778		738	1.687		640	1.60		1.598	59.979
60.84		1.779		739	1.688		641	160		1.598	62.342
63.25		1.779		739	1.688		641	1.60		1.599	64.784
65.73		1.779		739	1.689		642	1.61		1.599	67.311
68.31		1.780		740	1.689		642	1.61		1.599	69.924
7097		1.750		740	1.689		642	1.61		1.600	72.627
75.14	3 1.795	1.78.0		740	1.690		643	1.61		1.500	76.860
78.04	4 1.795	1.781	1.	741	1.690	_	643	1.61		1.600	79.805
81.04	5 1.795	1:781		741	1.690		643	1.61		1.600	82.853
84.15	2 1.796	1.781	1.	741	1.690		64-3	1.61		1.601	86.008
87.36	9 1.796	1.781	1.	741	1.691		644	1.61		1.601	89.274
90.69	8 1.796	1.781	1.	742	1.691		644	1.61		1.601	-
95.91	4 1.796	1782	1.	742	1.691	1.	644	1.61		1.601	97 - 951
99.54	5 1.797	1.782	1.	742	1.691	1	644	1.61	. 2	1.601	101.638
103.30	5 1.797	1.782	1. •-	742	1.691	1.	644	1.61	2	1.601	105.456
107.19		1.782		742	1.692		644	1.61	. 2	1.601	109.408
111.22		1.782		742	1.692		644	1.61	. 3	1.601	113.501
115.40		1.782		743	1.692		645	1.61	. 3	1.602	117.740
119.72		1.782		743	1.692		645	1.61	3	1.602	122.128
126.49		1.783		743	1.692		645	1.61			129.005
131.21		1.783		743			645	1.61	. 3	1.602	133.794
136.09		1.783		743	1.692		645	1.61	. 3	1.602	138.753
141.15		1.783		743	1.692		645	1.61		1.602	143.888
146.39		1.4783		743	1.692		645	1.61		1.602	149.207
151.81		1.783		743	1.693		645	1.61			154.714
160.31		1.783		743	1.693		645	1.61			163.346
166.23		1.783		743	1.693		646	1.61			169.358
172.36		1.783		743	1.693		646	1.61			175.583
17871		1.783		743	1.693		646	1.61			182.031
185.29		1.783		743	1.693		646	1.61			188.709
192.10		1.783		743	1.693		646	1.61			195.625
202.78	0 1.798	1.783	1.	744	1.693	1.	646	1.61	4	1.603	206.465

!	масн	NO =	5.00	CON	1E	ANGL	E	= 1	0.00	)	ANGLE	0F	ATT	ACK	=	1.0	0 0
				n r	- 2 5	E-ST	. D.E.	ΛM	ΛT		PLANE	ANGI	ES				
		•		P F		10 •	F . L.	9(			120.	15		1	80.		S/RN-
L/R	N	0 •	30•		•	) U •		,	•	•							
• •	_	7 444	3.085	•	<b>.</b>	17	2	. 98	24	2	835	2-7	70	2.	747		1.395
.82		3.111	3.025			356		. 86			.774	2.7		2.	686		1.500
•92		3.051	3.023			963		. 8			.783	2.7		2•	697		1.560
-98	-	3.057 3.010	2.985			919		. 8			.745	2.6		2.	662		1.693
1.11		2.905	2.882			318		.7			.651	2.5	92		571		1.931
1.35		2.823	2.800			738		. 6			.577	2.5	21	2.	500		2.119
1.53		2.732	2.710			551		• 5		2	.496	2.4	42		422		2.331
1.74		2.594	2.572			516		. 4			.370	2.3	20		301		2.696
2.10		2.496	2.476			422		. 3			.282	2.2	34		217		2.968
2.37 2.66		2.413	2.394			340		. 2		2	.204	2.1	57		141		3.262
		2.310	2.290			237		• 1		2	.104	2.0	59		043		3.749
3.14 3.49		2.251	2.232			179		• 1		2	.047	2.0	8 8		985		4.104
3.86		2.203	2.184			130		• 0		1	.997	1.9			937		4.483
4.47		2.149	2.129			075		• 0		1	•939	1.8			879		5.097
4.90		2.124	2.104			048	1	• 9	77	1	.910	1 • 8			849		5.537
5.36		2.107	2.086			029	1	. 9	56	1	.889	1.8			826		6.001
6.09		2.094	2.372			012	1	. 9	37	1	. 867	1.8			803		6.743
6.60		2.092	2.070			009	1	. 9	31		860	1.8			.794	-	7.267
7.14		2.095	2., 972		2.	009	:	L•9	30		. • 857	1.8			789		7.815
8.00		2.108	2.084		2.	018	1	L•9	135		. • 859	1.8			789		8.683
8.60		2.120	2.095		2.	8.50	:	L • 9	143		. 865	1.8			<b>.</b> 793		9.292
9.22		2.135	2.109	)	2.	040			953		. 873	1.8			800		9.925
10.20		2.161	2.134		2.	06.2			372		. 889		332		813		0.921
10.89		2.180	2.152	<u>.</u>	2.	079			86		. 901		344		.821		1.617
11.60		2.199	2 • 171	•		096			02		.915	1.8			.836		3.47.2
12.7		2.229	2.20	3		123			126		1.937		376		.85		4.263
13.49		2.249	2.220	)		141			142		L.952		390		•86° •88∶		15.083
14.3		2-268	2.238			159			159-		1.967		905		• 00 • 90		16.369
15.5	72	2.0296	2.266	5		185			383		1.989		926		• 91		17.266
16.4		2.314	2 - 28			201			198		2.004		940		•93	-	18.196
17.3		2.330	2.30			217			113		2.018		953		.95		19.644
18.7	97	2.353	2.32			239			1.34		2.037		972 984		•96		20.639
19.7	77	2-•367				252			147		2.049		995		-97		21.658
20.7	80	2.380	2.34			265			158		2.061		010		-98		23.231
22.3	3 O	2.398	2.36			282			175		2.076		019		.99		24.311
23.3	93	2.408				292			184		2.086		028		•00		25.415
24.4	80	2.417				301			193		2.094		039		-01		27.118
26.1	58	2.430	2.39			313			205		2.106		046		. 02		28.286
27.3		2.438				321			213		2.113 2.120		052		.02	-	29.479
28.4		2.445				328			219		2.128		061		-03		31.318
30.2		2.454				• 337			228		2.134		066		. 04		32.579
31.5		2.459				342			234		2.139		071		04		33.868
32 • 8		2.465				• 348 754			239° 246		2.145		078		. 05		35.857
34.7		2.471				354					2.150		082		. 05		37.222
36.1	.08	2.475	2.44	5	2	. 359		۲.	250		C 4 1 7 U		J 17 L	•		-	-

M	ACH NO =	5.00	CONE	ANG	LE =	10	• 00	ANGL	E OF	ATI	rack =	1.00
		P /	P- FRI	FF-S	TREAM	1	ΔT	PLANE	ANGL	FS		
L/RN	0 •	30 •		60.		90.	~ '	120.	150		180.	S/RN
	•									-		
37.484	2.479	2.447	2.	362	2.2			2.153	2.08	5	2.062	38.619
38.893	2.482	2.451	2.	366	2.2	257		2.157	2.08	9	2.065	40.050
41.073		2.455	2.	371	2.2	262		2.162	2.09		2.070	
42.573		2.458		373	2.2			2.164	2.09		2.073	43.787
44.112		2.460		376	2.2			2.167	2.09		2.076	45.350
46.498		2.463		379	2.2			2.171	2.10		2.079	47.773
48.144		2.465		381	2.2			2.173	2.10		2.081	
49.835		2.466		383	2.2			2.175			2.083	
52.461		2.468		385	2.2			2-178			2.086	53.827
54.274		2.469			2.2			2.180	2.11		2-088	55.668
56.139		2.470			2.2			2.181			2.089	57.563
59.039		2.471		389	2.2			2.183	2.11		2.092 2.093	60.507 62.542
61.043		2.471		390 300	2.2			2.184	2.11		2.093	64.636
63.105		2•472 2•472		390 391	2.2			2.185 2.187	2.11		2-096	67.893
66.313 68.531		2.473		392	2.2			2.187	2.12		2.096	70.145
70.814		2.473		392	2.2			2.188	2.12		2.097	72.464
74.367	2.504	2.474	2.	393	2.2	-01 287		2.189			2098	76.072
76.825		2.474		393	2.2			2.190	2.12	2	2.099	78.567
79.356	2.565	2.474	2.	393	2. 2			2.190	2.12	23	2.099	81.137
83.295	2.505	2.475	2.	394	2.2			2.191	2.12	2.3	2.100	85.138
86.021	2.505	2.475	2.	394	2.2	289		2.191	2.12	24	2.100	87.905
88.829	2.505	2.475	2.	394	2. 2			2.191				90.756
93.200		2.475			2.2			2.192	2.12	25	2.101	95.195
96.225	2.505	2.476	2.	395	2.2	290					2.101	
99.341	2.506	2-476	2.•	395	2.2	290						101.431
104.194		2.476			2.3			2.193				106.359
107.553		2 • 476			2.3			2.193				109.769
111.013		2.476	-		2.0			2.193				113.283
116.403		2.476			2. 3			2.193				118.756
120-133				396	2.7			2.194	2.12			122.543
123.977					2.3			2.194	2.12			126.446
129.963		2.477	_	396	2.3			2.194	2.12			132.525
134.107		2.477		396	2.6			2.194	2.12			136.733 141.069
138.377		2.477		396 306	2.6			2.194 2.194	2.12			147.823
145.028 149.632		2•477 2•477		396 396	2.6			2.194	2.12		-	152.497
154.376		2.477		<b>396</b>	2.2			2.194	2.12			157.315
161.766		2.477		396	2.3			2.195	2.12			164.819
166.882		2.47.7		396	2.			2.195	2.12			170.013
172.153		2.477		396	2.3			2.195	2.12			175.366
180.365		2.477		396	2.1			2.195	2.12			183.705
186.049		2.477		396	2.2			2.195	2.12			189.477
191.907		2.477		397	2.3			2.195	2.12			195.425
201.033		2.477		397	2.			2.195	2.17	8 5		204.691

MACH NO = $10.00$	CONE ANGLE = 10.00	ANGLE OF ATTACK =	1.00
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L/RN 0. 30. 60. 90. 120. 150. 180. S/RN  .826 10.536 10.443 10.193 9.860 9.536 9.304 9.220 1.396 .977 10.163 10.073 9.832 9.509 9.195 8.971 8.890 1.549 1.113 9.821 9.735 9.504 9.195 8.897 8.668 8.607 1.687 1.348 9.231 9.150 8.934 8.646 8.367 8.169 8.097 1.926 1.722 8.376 8.303 8.108 7.849 7.660 7.424 7.360 2.305 2.049 7.740 7.671 7.491 7.252 7.023 6.862 6.803 2.638 2.419 7.123 7.061 6.892 6.672 6.462 6.315 6.262 3.014 2.832 6.587 6.528 6.367 6.159 5.962 5.825 5.776 3.433 3.450 5.977 75.920 5.766 5.568 5.383 5.255 5.209 4.061 3.962 5.607 5.550 5.397 5.201 5.013 4.835 4.542 4.514 5.308 5.250 5.096 4.899 4.717 4.593 4.542 5.140 5.102 5.072 5.013 4.855 4.655 4.471 4.345 4.302 5.738 5.939 4.842 4.780 4.615 4.407 4.217 4.088 4.043 6.507 6.600 4.722 4.657 4.885 4.270 4.073 3.940 3.894 7.259 8.241 4.578 4.505 4.313 4.074 3.858 3.713 3.663 8.925 8.271 4.562 4.485 4.283 4.013 3.805 3.654 3.602 9.673 8.977 4.562 4.485 4.283 4.013 3.805 3.654 3.602 9.673 8.977 4.562 4.485 4.283 4.013 3.805 3.654 3.602 9.673 8.977 4.562 4.485 4.283 4.013 3.805 3.654 3.602 9.673 8.977 4.562 4.485 4.283 4.013 3.805 3.654 3.602 9.673 8.977 4.562 4.485 4.283 4.013 3.805 3.654 3.602 9.673 8.977 4.562 4.485 4.283 4.013 3.805 3.654 3.602 9.673 8.977 5.506 4.589 4.597 4.281 4.002 3.753 3.587 3.531 11.217 11.540 4.651 4.557 4.514 4.015 3.749 3.573 3.551 13.082 13.139 4.778 4.6674 4.403 4.072 3.778 3.585 3.519 13.082 13.139 4.778 4.6674 4.403 4.072 3.778 3.585 3.519 13.082 13.139 4.778 4.6674 4.403 4.072 3.778 3.585 3.519 13.082 13.139 4.778 4.6674 4.403 4.072 3.778 3.585 3.519 13.082 13.139 4.778 4.6674 4.403 4.072 3.778 3.585 3.519 13.082 13.139 4.778 4.6674 4.403 4.072 3.778 3.585 3.519 13.082 13.139 4.778 4.6674 4.403 4.072 3.778 3.585 3.519 13.082 13.139 4.778 4.6674 4.403 4.072 3.778 3.585 3.519 13.082 13.139 4.778 4.6674 4.403 4.072 3.778 3.585 3.519 13.082 13.139 4.778 4.674 4.403 4.072 3.778 3.585 3.519 13.082 13.139 4.778 4.674 4.406 4.059 3.805 3.719 19.517 16.707 5.153 5.026 4.884 4.846 4.466 4.059 3.805 3.719 19.517 16.707 5.153 5.026 4.			p /	P FREE-S1	PPEAM AT	PLANE	ANGLES		
.826 10.536 10.443 10.193 9.860 9.536 9.304 9.220 1.396 .977 10.163 10.073 9.832 9.509 9.195 8.971 8.890 1.549 1.113 9.821 9.735 9.504 9.195 8.897 8.684 8.607 1.687 1.348 9.231 9.150 8.934 8.646 8.367 8.169 8.097 1.926 1.722 8.376 8.303 8.108 7.849 7.600 7.424 7.360 2.305 2.049 7.740 7.671 7.491 7.252 7.023 6.862 6.803 2.638 2.419 7.123 7.061 6.892 6.672 6.462 6.315 6.262 3.014 2.832 6.587 6.528 6.367 6.159 5.962 5.825 5.776 3.433 3.450 5.977 5.920 5.766 5.568 5.383 5.255 5.209 4.061 3.962 5.607 5.550 5.397 5.201 5.014 4.894 4.850 4.580 4.514 5.308 5.250 5.096 4.899 4.717 4.593 4.542 5.140 5.102 5.072 5.013 4.855 4.665 4.471 4.345 4.302 5.738 6.600 4.722 4.657 4.885 4.270 4.073 3.940 3.894 7.259 7.288 4.639 4.572 4.392 4.167 3.963 3.825 3.778 7.958 8.241 4.578 4.505 4.313 4.074 3.858 3.713 3.663 8.925 8.297 4.562 4.485 4.283 4.031 3.805 3.654 3.602 9.673 9.730 4.568 4.487 4.273 4.008 3.771 3.5613 3.559 10.438 8.977 4.562 4.485 4.283 4.031 3.805 3.653 3.551 12.276 12.335 4.709 4.610 4.353 4.035 3.749 3.573 3.551 12.276 12.335 4.709 4.610 4.353 4.038 3.779 3.577 3.551 13.082 15.873 5.059 4.937 4.621 4.335 3.893 3.706 3.627 17.521 15.873 5.059 4.937 4.621 4.235 3.893 3.706 3.627 17.521 17.826 5.282 5.148 4.803 4.380 4.006 3.761 3.653 1.663 1.898 13.951 4.855 4.745 4.401 4.113 3.805 3.638 3.559 13.898 13.951 4.855 4.745 4.401 4.113 3.805 3.638 3.551 13.898 13.951 4.855 5.244 4.844 4.446 4.059 3.893 3.706 3.627 17.521 17.826 5.282 5.148 4.803 4.380 4.006 3.761 3.676 1.6675 16.707 5.153 5.026 4.698 4.295 3.939 3.706 3.627 17.521 17.826 5.282 5.148 4.803 4.380 4.006 3.761 3.676 1.6675 17.826 5.282 5.148 5.049 4.719 3.856 3.965 3.719 19.517 19.522 5.475 5.333 4.966 4.514 4.114 3.852 3.762 20.380 20.376 5.703 5.629 5.533 4.741 4.303 4.015 3.917 23.287 22.385 5.773 5.629 5.533 4.741 4.303 4.015 3.917 23.287 22.385 5.773	LZPN	Λ.						180-	SZRN
.977       10.163       10.073       9.832       9.509       9.195       8.971       8.8607       1.549         1.348       9.231       9.735       9.504       9.195       8.684       8.664       8.667       1.687         1.348       9.231       9.150       8.944       8.664       8.367       8.168       8.007       1.926         1.722       8.376       8.303       8.108       7.849       7.600       7.424       7.360       2.305         2.049       7.170       7.671       7.491       7.252       7.023       6.62       6.632       6.632         2.419       7.123       7.061       6.892       6.672       6.462       6.315       6.262       3.014         2.832       6.587       6.528       6.367       6.159       5.962       5.825       5.776       3.433         3.450       5.977       5.920       5.766       5.568       5.383       5.255       5.219       4.061         4.514       5.308       5.250       5.096       4.899       4.717       4.593       4.549       5.140         5.933       4.824       4.780       4.655       4.465       4.471       4.345		•	.,0	000	<b>70 •</b>	1204	100	2000	•
.977       10.163       10.073       9.832       9.509       9.195       8.971       8.8607       1.549         1.348       9.231       9.735       9.504       9.195       8.684       8.664       8.667       1.687         1.348       9.231       9.150       8.944       8.664       8.367       8.168       8.007       1.926         1.722       8.376       8.303       8.108       7.849       7.600       7.424       7.360       2.305         2.049       7.170       7.671       7.491       7.252       7.023       6.62       6.632       6.632         2.419       7.123       7.061       6.892       6.672       6.462       6.315       6.262       3.014         2.832       6.587       6.528       6.367       6.159       5.962       5.825       5.776       3.433         3.450       5.977       5.920       5.766       5.568       5.383       5.255       5.219       4.061         4.514       5.308       5.250       5.096       4.899       4.717       4.593       4.549       5.140         5.933       4.824       4.780       4.655       4.465       4.471       4.345	-826	10.536	10.443	10-193	9-860	9.536	9.304	9.220	1.396
1.113       9.821       9.735       9.504       9.195       8.8877       8.686       8.607       1.687         1.348       9.231       9.150       8.934       8.646       8.367       8.169       8.097       1.926         1.722       8.376       8.303       8.108       7.849       7.600       7.424       7.360       2.305         2.049       7.740       7.671       7.491       7.252       7.023       6.862       6.803       2.638         2.419       7.123       7.061       6.892       6.672       6.462       5.4315       6.262       3.014         2.832       6.587       6.526       6.367       6.199       5.962       5.825       5.776       3.433         3.450       5.977       5.920       5.766       5.568       5.383       5.255       5.209       4.061         4.514       5.308       5.250       5.096       4.899       4.717       4.594       4.580       4.580         5.102       5.072       5.013       4.855       4.655       4.471       4.348       4.003       5.587         7.288       4.657       4.485       4.270       4.073       3.940       3.894									
1.348       9.231       9.150       8.934       8.646       8.367       8.169       8.097       1.926         1.772       8.376       8.303       8.108       7.849       7.600       7.424       7.360       2.305         2.419       7.123       7.061       6.892       6.672       6.462       6.315       6.262       3.014         2.832       6.587       6.528       6.367       6.159       5.962       5.825       5.776       3.433         3.450       5.977       5.920       5.766       5.568       5.383       5.255       5.209       4.061         3.962       5.607       5.550       5.397       5.201       5.019       4.8894       4.850       4.580         4.514       5.308       5.250       5.096       4.8899       4.717       4.593       4.549       5.140         5.102       5.072       5.013       4.855       4.655       4.471       4.349       4.549       5.140         5.939       4.842       4.880       4.615       4.407       4.217       4.088       4.043       6.587         6.600       4.722       4.657       4.485       4.270       4.073       3.875									
1.722 8.376 8.303 8.108 7.849 7.600 7.424 7.360 2.305 2.019 7.740 7.671 7.491 7.223 7.023 6 862 6.803 2.638 2.419 7.123 7.061 6.892 6.672 6.462 6.315 6.262 3.014 2.832 6.587 6.528 6.367 6.159 5.962 5.825 5.776 3.433 3.450 5.977 5.920 5.766 5.568 5.383 5.255 5.209 4.061 3.962 5.607 5.550 5.397 5.201 5.019 4.894 4.850 4.580 5.250 5.096 4.899 4.717 4.593 4.549 5.140 5.102 5.072 5.013 4.855 4.655 4.471 4.345 4.302 5.738 5.939 4.842 4.780 4.615 4.407 4.217 4.088 4.043 6.587 6.600 4.722 4.657 4.485 4.270 4.073 3.940 3.894 7.259 7.288 4.639 4.572 4.392 4.167 3.963 3.825 3.778 7.958 8.241 4.578 4.505 4.313 4.074 3.858 3.713 3.663 8.925 8.977 4.562 4.885 4.283 4.031 3.805 3.654 3.652 9.673 10.498 4.593 4.557 4.281 4.002 3.753 3.557 3.551 11.217 11.540 4.651 4.557 4.281 4.002 3.753 3.557 3.551 12.276 13.139 4.778 4.657 4.481 4.015 3.749 3.573 3.511 12.217 11.540 4.651 4.557 4.314 4.015 3.749 3.573 3.511 13.082 13.139 4.778 4.657 4.461 4.113 3.805 3.638 3.554 3.511 13.082 13.139 4.778 4.657 4.461 4.113 3.805 3.638 3.554 3.511 13.082 15.873 5.059 4.937 4.621 4.235 3.893 3.670 3.554 14.723 15.045 4.969 4.852 4.649 4.179 3.852 3.638 3.559 10.438 13.951 4.855 4.745 4.461 4.113 3.805 3.638 3.554 13.519 13.082 15.873 5.059 4.937 4.621 4.235 3.893 3.670 3.594 16.675 15.834 4.803 4.380 4.006 3.761 3.678 18.659 19.522 5.475 5.333 4.966 4.514 4.113 3.805 3.603 3.534 14.723 15.045 4.969 4.852 4.549 4.179 3.852 3.638 3.760 3.594 16.675 19.522 5.475 5.333 4.966 4.514 4.114 3.8852 3.762 20.3380 20.376 5.570 5.424 5.047 4.582 4.170 3.900 3.808 21.247 23.255 5.783 5.629 5.233 4.741 4.303 4.015 3.990 3.808 21.247 23.255 5.854 5.868 5.712 5.309 4.807 4.536 4.006 3.761 3.678 18.659 22.335 5.783 5.542 5.333 4.873 4.416 4.115 4.005 3.997 22.416 22.335 5.783 5.542 5.543 4.804 4.906 3.761 3.678 18.659 22.335 5.783 5.544 4.884 4.446 4.059 3.893 3.600 3.808 21.247 23.255 5.868 5.712 5.339 4.873 4.416 4.115 4.005 3.990 3.808 21.247 23.255 5.868 5.712 5.339 4.874 4.4360 4.015 3.990 3.808 21.247 23.255 5.454 5.868 5.712 5.339 4.873 4.416 4.115 4.005									
2.049 7.740 7.671 7.491 7.252 7.023 6 862 6.803 2.638 2.419 7.123 7.061 6.892 6.672 6.462 6.315 6.262 3.014 2.832 6.587 6.528 6.367 6.159 5.962 5.825 5.776 3.433 3.450 5.977 5.920 5.766 5.568 5.383 5.255 5.209 4.061 3.962 5.607 5.550 5.397 5.201 5.019 4.894 4.850 4.580 4.580 4.514 5.308 5.250 5.096 4.899 4.717 4.593 4.549 5.140 5.102 5.072 5.013 4.855 4.655 4.471 4.345 4.302 5.738 5.939 4.842 4.780 4.615 4.407 4.217 4.088 4.043 6.587 7.288 4.639 4.572 4.392 4.167 3.963 3.825 3.778 7.958 8.241 4.578 4.505 4.313 4.074 3.853 3.825 3.778 7.958 8.241 4.578 4.505 4.313 4.074 3.853 3.825 3.778 7.958 8.241 4.566 4.487 4.273 4.008 3.771 3.663 8.925 9.730 4.566 4.487 4.273 4.008 3.771 3.663 8.925 9.730 4.566 4.487 4.273 4.008 3.771 3.563 3.859 10.438 10.498 4.553 4.557 4.314 4.015 3.774 3.551 13.082 9.673 11.217 11.540 4.651 4.557 4.314 4.015 3.7749 3.573 3.551 11.217 11.540 4.651 4.557 4.314 4.015 3.7749 3.573 3.551 12.276 12.335 4.709 4.610 4.353 4.038 3.759 3.573 3.512 12.276 12.335 4.709 4.610 4.353 4.038 3.759 3.573 3.512 12.276 12.335 4.709 4.610 4.353 4.038 3.759 3.573 3.512 12.276 12.335 4.709 4.610 4.353 4.038 3.759 3.573 3.511 13.082 15.045 4.969 4.852 4.549 4.179 3.852 3.603 3.554 14.723 15.045 4.969 4.852 4.549 4.179 3.852 3.638 3.565 15.834 15.873 5.059 4.884 4.880 4.002 3.778 3.585 3.519 13.898 13.951 4.885 5.026 4.698 4.295 3.939 3.706 3.627 17.521 17.826 5.282 5.148 4.880 4.486 4.015 3.939 3.706 3.627 17.521 17.826 5.282 5.148 4.880 4.486 4.015 3.939 3.706 3.627 17.521 17.826 5.549 5.544 4.884 4.486 4.059 3.805 3.761 3.678 18.659 18.672 5.570 5.424 5.047 4.582 4.170 3.900 3.808 21.247 21.521 5.694 5.543 5.154 4.884 4.486 4.059 3.805 3.761 3.678 18.659 18.672 5.783 5.026 4.698 4.295 3.939 3.706 3.627 17.521 17.826 5.549 5.543 5.154 4.884 4.486 4.059 3.805 3.761 3.678 18.659 18.672 5.570 5.424 5.047 4.582 4.170 3.900 3.808 21.247 21.521 5.694 5.543 5.154 4.884 4.486 4.059 3.805 3.760 3.900 3.808 21.247 21.521 5.694 5.543 5.154 4.884 4.486 4.056 3.965 3.870 22.410 22.385 5.578 5.629 5.233 4.741 4.303 4.015 3									
2.419       7.123       7.061       6.892       6.672       6.462       6.315       6.262       3.014         2.832       6.587       6.528       6.367       6.159       5.962       5.825       5.776       3.433         3.450       5.977       5.920       5.766       5.568       5.383       5.255       5.209       4.061         3.962       5.607       5.550       5.397       5.201       5.019       4.894       4.850       4.580         4.514       5.308       5.250       5.096       4.899       4.717       4.593       4.549       5.140         5.339       4.842       4.780       4.615       4.401       4.217       4.088       4.043       6.587         6.000       4.722       4.657       4.485       4.270       4.073       3.940       3.894       7.259         7.288       4.639       4.572       4.392       4.167       3.963       3.825       3.778       7.958         8.291       4.578       4.505       4.313       4.074       3.853       3.713       3.663       8.925         9.730       4.562       4.485       4.283       4.031       3.805       3.654									
2.832 6.587 6.528 6.367 6.159 5.962 5.825 5.776 3.433 3.450 5.977 5.920 5.766 5.568 5.383 5.255 5.209 4.061 3.962 5.607 5.550 5.397 5.201 5.019 4.8894 4.850 4.580 4.514 5.308 5.250 5.096 4.8899 4.717 4.593 4.542 5.140 5.102 5.072 5.013 4.855 4.655 4.471 4.345 4.302 5.738 5.939 4.842 4.780 4.615 4.407 4.217 4.088 4.043 6.5587 6.600 4.722 4.657 4.485 4.270 4.073 3.940 3.894 7.259 7.288 4.639 4.572 4.392 4.167 3.963 3.825 3.778 7.958 8.241 4.578 4.505 4.313 4.074 3.858 3.713 3.663 8.925 8.977 4.562 4.485 4.283 4.031 3.805 3.664 3.602 9.673 9.730 4.568 4.487 4.273 4.008 3.771 3.613 3.559 10.438 10.498 4.593 4.507 4.281 4.002 3.753 3.587 3.531 11.217 11.540 4.651 4.557 4.314 4.015 3.749 3.573 3.512 12.276 12.335 4.709 4.640 4.353 4.038 3.759 3.574 3.511 13.082 13.139 4.778 4.674 4.403 4.072 3.778 3.585 3.511 13.082 13.139 4.778 4.660 4.353 4.038 3.759 3.574 3.511 13.082 13.951 4.855 4.745 4.461 4.113 3.805 3.603 3.534 14.723 15.045 4.969 4.852 4.549 4.179 3.852 3.638 3.519 13.898 15.873 5.059 4.937 4.621 4.235 3.893 3.670 3.594 16.675 16.707 5.153 5.026 4.698 4.295 3.939 3.706 3.627 17.521 17.826 5.282 5.148 4.803 4.380 4.006 3.761 3.678 18.659 18.672 5.379 5.241 4.884 4.464 4.059 3.895 3.761 3.678 18.659 18.672 5.379 5.241 4.884 4.464 4.059 3.895 3.762 20.380 20.376 5.570 5.424 5.047 4.582 4.114 3.8852 3.762 20.380 20.376 5.570 5.424 5.047 4.582 4.114 3.8852 3.762 20.380 20.376 5.570 5.424 5.047 4.582 4.114 3.8852 3.762 20.380 20.376 5.570 5.424 5.047 4.582 4.114 3.8852 3.762 20.380 20.376 5.570 5.424 5.047 4.582 4.115 3.965 3.8965 3.719 19.517 19.522 5.475 5.333 4.966 4.514 4.114 3.852 3.762 20.380 20.376 5.570 5.424 5.047 4.582 4.115 5.047 4.582 4.115 5.015 3.917 23.287 22.335 5.783 5.629 5.233 4.741 4.303 4.015 3.917 23.287 23.254 5.868 5.712 5.309 4.807 4.360 4.065 3.965 24.163 24.128 5.949 5.792 5.383 4.873 4.416 4.115 4.013 25.057 25.303 6.051 5.892 5.747 4.957 4.490 4.115 4.017 22.2410 24.128 5.949 5.792 5.383 4.873 4.416 4.115 4.013 25.057 25.303 6.051 5.892 5.574 5.017 4.549 4.230 4.123 27.154 27.092 6.190									
3.450       5.977       5.920       5.766       5.568       5.383       5.255       5.209       4.061         3.962       5.607       5.550       5.397       5.201       5.019       4.894       4.850       4.580         4.514       5.308       5.250       5.096       4.899       4.717       4.593       4.549       5.140         5.102       5.013       4.855       4.655       4.471       4.345       4.302       5.738         5.939       4.842       4.667       4.485       4.270       4.073       3.940       3.894       7.259         7.288       4.639       4.572       4.332       4.167       3.963       3.825       3.778       7.958         8.241       4.578       4.505       4.313       4.074       3.805       3.613       3.663       8.925         8.977       4.562       4.485       4.223       4.031       3.805       3.654       3.602       9.673         9.730       4.568       4.487       4.2273       4.008       3.771       3.613       3.559       10.438         10.498       4.593       4.507       4.231       4.002       3.753       3.557       3.511									
3.962       5.607       5.550       5.397       5.201       5.019       4.894       4.850       4.580         4.514       5.308       5.250       5.096       4.899       4.717       4.593       4.549       5.140         5.012       5.072       5.013       4.855       4.655       4.471       4.345       4.302       5.738         5.939       4.842       4.780       4.615       4.407       4.017       4.088       4.043       6.587         6.600       4.722       4.657       4.485       4.270       4.073       3.940       3.894       7.259         7.288       4.639       4.572       4.392       4.167       3.963       3.825       3.778       7.958         8.241       4.578       4.505       4.313       4.074       3.8858       3.713       3.663       8.925         9.730       4.568       4.485       4.283       4.031       3.805       3.654       3.602       9.673         9.730       4.568       4.4857       4.283       4.031       3.805       3.587       3.531       11.217         11.540       4.651       4.557       4.314       4.015       3.749       3.573									
4.514       5.308       5.250       5.096       4.899       4.717       4.593       4.549       5.140         5.102       5.072       5.013       4.855       4.665       4.471       4.345       4.302       5.738         6.600       4.722       4.657       4.485       4.217       4.088       4.043       6.587         7.288       4.639       4.572       4.392       4.167       3.963       3.825       3.778       7.958         8.241       4.578       4.505       4.313       4.074       3.858       3.713       3.663       8.925         8.977       4.562       4.485       4.283       4.031       3.805       3.654       3.602       9.673         9.730       4.562       4.487       4.273       4.008       3.771       3.613       3.5591       10.438         10.498       4.593       4.507       4.281       4.002       3.753       3.587       3.531       11.217         11.540       4.651       4.353       4.008       3.779       3.574       3.511       13.082         13.139       4.778       4.610       4.353       4.035       3.579       3.574       3.511       13.082 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
5.102       5.072       5.013       4.855       4.655       4.471       4.345       4.302       5.738         5.939       4.842       4.780       4.615       4.407       4.217       4.088       4.043       6.587         7.288       4.639       4.572       4.485       4.270       4.073       3.940       3.878       7.2958         8.241       4.578       4.505       4.313       4.074       3.858       3.713       3.663       8.925         8.977       4.562       4.485       4.283       4.031       3.805       3.654       3.602       9.673         9.730       4.568       4.487       4.283       4.001       3.771       3.613       3.559       10.438         10.498       4.593       4.507       4.281       4.002       3.753       3.557       3.531       11.276         11.540       4.651       4.557       4.314       4.0015       3.749       3.573       3.511       13.082         13.139       4.778       4.610       4.353       4.013       3.805       3.638       3.519       13.898         15.875       4.314       4.013       3.805       3.638       3.554       3.511 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
5.939       4.842       4.780       4.615       4.407       4.217       4.088       4.043       6.587         6.600       4.722       4.657       4.485       4.270       4.073       3.940       3.894       7.259         7.288       4.639       4.572       4.392       4.167       3.963       3.825       3.778       7.958         8.241       4.578       4.505       4.313       4.074       3.858       3.713       3.663       8.925         8.977       4.562       4.485       4.283       4.031       3.805       3.654       3.602       9.673         9.730       4.568       4.487       4.273       4.008       3.771       3.613       3.559       10.438         10.498       4.593       4.507       4.281       4.002       3.753       3.557       3.531       11.217         11.540       4.651       4.557       4.314       4.015       3.749       3.573       3.511       13.082         13.139       4.778       4.610       4.353       4.038       3.759       3.551       13.882         13.951       4.852       4.549       4.179       3.852       3.638       3.554       14.723 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
6.600       4.722       4.657       4.485       4.270       4.073       3.940       3.894       7.259         7.288       4.639       4.572       4.392       4.167       3.963       3.825       3.778       7.958         8.241       4.578       4.505       4.313       4.074       3.858       3.713       3.663       8.925         8.977       4.562       4.485       4.283       4.031       3.805       3.654       3.602       9.673         9.730       4.568       4.487       4.273       4.008       3.771       3.613       3.559       10.438         10.498       4.593       4.507       4.281       4.002       3.753       3.587       3.531       11.217         11.540       4.651       4.557       4.314       4.015       3.749       3.573       3.512       12.276         12.335       4.709       4.610       4.353       4.038       3.759       3.574       3.511       13.082         13.139       4.778       4.674       4.403       4.072       3.78       3.585       3.511       13.082         15.045       4.969       4.852       4.549       4.179       3.852       3.638 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
7.288       4.639       4.572       4.392       4.167       3.963       3.825       3.778       7.958         8.241       4.578       4.505       4.313       4.074       3.858       3.713       3.663       8.925         8.977       4.562       4.485       4.283       4.031       3.805       3.654       3.602       9.673         9.730       4.568       4.487       4.273       4.008       3.771       3.513       3.559       10.438         10.498       4.593       4.507       4.281       4.002       3.753       3.5587       3.531       11.217         11.540       4.651       4.557       4.314       4.015       3.749       3.573       3.512       12.276         12.335       4.709       4.610       4.353       4.038       3.759       3.574       3.511       13.082         13.139       4.778       4.674       4.403       4.072       3.778       3.585       3.519       13.898         13.951       4.855       4.745       4.461       4.113       3.805       3.638       3.565       15.834         15.873       5.059       4.937       4.621       4.235       3.893       3.67									
8.241       4.578       4.505       4.313       4.074       3.858       3.713       3.663       8.925         8.977       4.562       4.485       4.283       4.031       3.805       3.654       3.602       9.673         9.730       4.568       4.487       4.273       4.008       3.771       3.613       3.559       10.438         10.498       4.593       4.507       4.281       4.002       3.753       3.587       3.531       11.217         11.540       4.651       4.557       4.314       4.015       3.749       3.573       3.512       12.276         12.335       4.709       4.610       4.353       4.038       3.759       3.574       3.511       13.082         13.139       4.778       4.674       4.403       4.072       3.778       3.585       3.519       13.892         13.991       4.855       4.745       4.461       4.113       3.805       3.638       3.559       14.723         15.045       4.969       4.852       4.549       4.179       3.852       3.638       3.559       16.675         16.707       5.153       5.026       4.698       4.295       3.939       3.7						_			
8.977       4.562       4.485       4.283       4.031       3.805       3.654       3.602       9.673         9.730       4.568       4.487       4.273       4.008       3.771       3.613       3.559       10.438         10.498       4.593       4.507       4.281       4.002       3.753       3.587       3.531       11.217         11.540       4.651       4.557       4.314       4.015       3.749       3.573       3.512       12.276         12.335       4.709       4.610       4.353       4.038       3.759       3.574       3.511       13.082         13.139       4.778       4.674       4.403       4.072       3.778       3.585       3.519       13.898         13.951       4.855       4.745       4.461       4.113       3.805       3.603       3.534       14.725         15.045       4.969       4.852       4.621       4.235       3.893       3.670       3.594       16.675         16.707       5.153       5.026       4.698       4.295       3.939       3.706       3.627       17.521         17.826       5.282       5.148       4.803       4.380       4.006       3									
9.730       4.568       4.487       4.273       4.008       3.771       3.613       3.559       10.438         10.498       4.593       4.507       4.281       4.002       3.753       3.587       3.531       11.217         11.540       4.651       4.557       4.314       4.015       3.749       3.573       3.512       12.276         12.335       4.709       4.610       4.353       4.038       3.759       3.574       3.511       13.082         13.139       4.778       4.674       4.403       4.072       3.778       3.585       3.519       13.898         13.951       4.855       4.745       4.461       4.113       3.805       3.603       3.534       14.723         15.045       4.969       4.852       4.549       4.179       3.852       3.638       3.565       15.834         15.873       5.059       4.937       4.621       4.235       3.893       3.670       3.594       16.675         16.707       5.153       5.026       4.698       4.295       3.939       3.706       3.627       17.521         17.826       5.282       5.148       4.803       4.380       4.006 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>_</td></td<>									_
10.498       4.593       4.507       4.281       4.002       3.753       3.587       3.531       11.217         11.540       4.651       4.557       4.314       4.015       3.749       3.573       3.512       12.276         12.335       4.709       4.610       4.353       4.038       3.759       3.574       3.511       13.082         13.139       4.778       4.674       4.403       4.072       3.778       3.585       3.519       13.898         13.951       4.855       4.745       4.461       4.113       3.805       3.603       3.534       14.723         15.873       5.059       4.937       4.621       4.235       3.893       3.670       3.594       16.675         16.707       5.153       5.026       4.698       4.295       3.939       3.706       3.627       17.521         17.826       5.282       5.148       4.803       4.380       4.006       3.761       3.678       18.659         18.672       5.475       5.333       4.966       4.514       4.114       3.852       3.762       20.380         20.376       5.570       5.424       5.047       4.582       4.170 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
11.540       4.651       4.557       4.314       4.015       3.749       3.573       3.512       12.276         12.335       4.709       4.610       4.353       4.038       3.759       3.574       3.511       13.082         13.139       4.778       4.674       4.403       4.072       3.778       3.585       3.519       13.898         13.951       4.855       4.745       4.461       4.113       3.805       3.603       3.534       14.723         15.045       4.969       4.852       4.549       4.179       3.852       3.638       3.565       15.834         15.873       5.059       4.937       4.621       4.235       3.893       3.670       3.594       16.675         16.707       5.153       5.026       4.698       4.295       3.939       3.706       3.627       17.521         17.826       5.282       5.148       4.803       4.380       4.006       3.761       3.678       18.659         18.672       5.379       5.241       4.884       4.446       4.059       3.805       3.719       19.517         19.522       5.475       5.333       4.966       4.514       4.114 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
12.335       4.709       4.610       4.353       4.038       3.759       3.574       3.511       13.082         13.139       4.778       4.674       4.403       4.072       3.778       3.585       3.519       13.898         13.951       4.855       4.745       4.461       4.113       3.805       3.603       3.534       14.723         15.045       4.969       4.852       4.549       4.179       3.852       3.638       3.565       15.834         15.873       5.059       4.937       4.621       4.235       3.893       3.670       3.594       16.675         16.707       5.153       5.026       4.698       4.295       3.939       3.706       3.627       17.521         17.826       5.282       5.148       4.803       4.380       4.006       3.761       3.678       18.659         18.672       5.379       5.241       4.884       4.446       4.059       3.805       3.719       19.517         19.522       5.475       5.333       4.966       4.514       4.114       3.852       3.762       20.380         20.376       5.570       5.424       5.047       4.582       4.170 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
13.139       4.778       4.674       4.403       4.072       3.778       3.585       3.519       13.898         13.951       4.855       4.745       4.461       4.113       3.805       3.603       3.534       14.723         15.045       4.969       4.852       4.549       4.179       3.852       3.638       3.565       15.834         15.873       5.059       4.937       4.621       4.235       3.893       3.670       3.594       16.675         16.707       5.153       5.026       4.698       4.295       3.939       3.706       3.627       17.521         17.826       5.282       5.148       4.803       4.380       4.006       3.761       3.678       18.659         18.672       5.379       5.241       4.884       4.446       4.059       3.805       3.719       19.517         19.522       5.475       5.333       4.966       4.514       4.114       3.852       3.762       20.380         20.376       5.570       5.424       5.047       4.582       4.170       3.900       3.808       21.247         21.521       5.694       5.543       5.233       4.741       4.303 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
13.951       4.855       4.745       4.461       4.113       3.805       3.603       3.534       14.723         15.045       4.969       4.852       4.549       4.179       3.852       3.638       3.565       15.834         15.873       5.059       4.937       4.621       4.235       3.893       3.670       3.594       16.675         16.707       5.153       5.026       4.698       4.295       3.939       3.706       3.627       17.521         17.826       5.282       5.148       4.803       4.380       4.006       3.761       3.678       18.659         18.672       5.379       5.241       4.884       4.446       4.059       3.805       3.719       19.517         19.522       5.475       5.333       4.966       4.514       4.114       3.852       3.762       20.380         20.376       5.570       5.424       5.047       4.582       4.170       3.900       3.808       21.247         21.521       5.694       5.543       5.154       4.673       4.246       3.965       3.870       22.410         22.385       5.783       5.629       5.233       4.741       4.303 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
15.045       4.969       4.852       4.549       4.179       3.852       3.638       3.565       15.834         15.873       5.059       4.937       4.621       4.235       3.893       3.670       3.594       16.675         16.707       5.153       5.026       4.698       4.295       3.939       3.706       3.627       17.521         17.826       5.282       5.148       4.803       4.380       4.006       3.761       3.678       18.659         18.672       5.379       5.241       4.884       4.446       4.059       3.805       3.719       19.517         19.522       5.475       5.333       4.966       4.514       4.114       3.852       3.762       20.380         20.376       5.570       5.424       5.047       4.582       4.170       3.900       3.808       21.247         21.521       5.694       5.543       5.454       4.673       4.246       3.965       3.870       22.410         22.385       5.783       5.629       5.233       4.741       4.303       4.015       3.917       23.287         23.254       5.868       5.712       5.383       4.873       4.416 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
15.873       5.059       4.937       4.621       4.235       3.893       3.670       3.594       16.675         16.707       5.153       5.026       4.698       4.295       3.939       3.706       3.627       17.521         17.826       5.282       5.148       4.803       4.380       4.006       3.761       3.678       18.659         18.672       5.379       5.241       4.884       4.446       4.059       3.805       3.719       19.517         19.522       5.475       5.333       4.966       4.514       4.114       3.852       3.762       20.380         20.376       5.570       5.424       5.047       4.582       4.170       3.900       3.808       21.247         21.521       5.694       5.543       5.454       4.673       4.246       3.965       3.870       22.410         22.385       5.783       5.629       5.233       4.741       4.303       4.015       3.917       23.287         23.254       5.868       5.712       5.309       4.807       4.360       4.065       3.965       24.169         24.128       5.949       5.792       5.383       4.873       4.416 <t< td=""><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>			-						
16.707       5.153       5.026       4.698       4.295       3.939       3.706       3.627       17.521         17.826       5.282       5.148       4.803       4.380       4.006       3.761       3.678       18.659         18.672       5.379       5.241       4.884       4.446       4.059       3.805       3.719       19.517         19.522       5.475       5.333       4.966       4.514       4.114       3.852       3.762       20.380         20.376       5.570       5.424       5.047       4.582       4.170       3.900       3.808       21.247         21.521       5.694       5.543       5.154       4.673       4.246       3.965       3.870       22.410         22.385       5.783       5.629       5.233       4.741       4.303       4.015       3.917       23.287         23.254       5.868       5.712       5.309       4.807       4.360       4.065       3.965       24.169         24.128       5.949       5.792       5.383       4.873       4.416       4.115       4.013       25.057         25.303       6.051       5.892       5.477       4.957       4.490 <t< td=""><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>			-						
17.826       5.282       5.148       4.803       4.380       4.006       3.761       3.678       18.659         18.672       5.379       5.241       4.884       4.446       4.059       3.805       3.719       19.517         19.522       5.475       5.333       4.966       4.514       4.114       3.852       3.762       20.380         20.376       5.570       5.424       5.047       4.582       4.170       3.900       3.808       21.247         21.521       5.694       5.543       5.154       4.673       4.246       3.965       3.870       22.410         22.385       5.783       5.629       5.233       4.741       4.303       4.015       3.917       23.287         23.254       5.868       5.712       5.309       4.807       4.360       4.065       3.965       24.169         24.128       5.949       5.792       5.383       4.873       4.416       4.115       4.013       25.057         25.303       6.051       5.892       5.477       4.957       4.490       4.181       4.076       26.250         26.193       6.123       5.608       5.608       5.076       4.596 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
18.672       5.379       5.241       4.884       4.446       4.059       3.805       3.719       19.517         19.522       5.475       5.333       4.966       4.514       4.114       3.852       3.762       20.380         20.376       5.570       5.424       5.047       4.582       4.170       3.900       3.808       21.247         21.521       5.694       5.543       5.154       4.673       4.246       3.965       3.870       22.410         22.385       5.783       5.629       5.233       4.741       4.303       4.015       3.917       23.287         23.254       5.868       5.712       5.309       4.807       4.360       4.065       3.965       24.169         24.128       5.949       5.792       5.383       4.873       4.416       4.115       4.013       25.057         25.303       6.051       5.892       5.477       4.957       4.490       4.181       4.076       26.250         26.193       6.123       5.962       5.544       5.017       4.543       4.230       4.123       27.154         27.092       6.190       6.028       5.608       5.076       4.596 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
19.522       5.475       5.333       4.966       4.514       4.114       3.852       3.762       20.380         20.376       5.570       5.424       5.047       4.582       4.170       3.900       3.808       21.247         21.521       5.694       5.543       5.454       4.673       4.246       3.965       3.870       22.410         22.385       5.783       5.629       5.233       4.741       4.303       4.015       3.917       23.287         23.254       5.868       5.712       5.309       4.807       4.360       4.065       3.965       24.169         24.128       5.949       5.792       5.383       4.873       4.416       4.115       4.013       25.057         25.303       6.051       5.892       5.477       4.957       4.490       4.181       4.076       26.250         26.193       6.123       5.962       5.544       5.017       4.543       4.230       4.123       27.154         27.092       6.190       6.028       5.608       5.076       4.596       4.278       4.169       28.067									
20.376       5.570       5.424       5.047       4.582       4.170       3.900       3.808       21.247         21.521       5.694       5.543       5.154       4.673       4.246       3.965       3.870       22.410         22.385       5.783       5.629       5.233       4.741       4.303       4.015       3.917       23.287         23.254       5.868       5.712       5.309       4.807       4.360       4.065       3.965       24.169         24.128       5.949       5.792       5.383       4.873       4.416       4.115       4.013       25.057         25.303       6.051       5.892       5.477       4.957       4.490       4.181       4.076       26.250         26.193       6.123       5.962       5.544       5.017       4.543       4.230       4.123       27.154         27.092       6.190       6.028       5.608       5.076       4.596       4.278       4.169       28.067									
21.521       5.694       5.543       5.454       4.673       4.246       3.965       3.870       22.410         22.385       5.783       5.629       5.233       4.741       4.303       4.015       3.917       23.287         23.254       5.868       5.712       5.309       4.807       4.360       4.065       3.965       24.169         24.128       5.949       5.792       5.383       4.873       4.416       4.115       4.013       25.057         25.303       6.051       5.892       5.477       4.957       4.490       4.181       4.076       26.250         26.193       6.123       5.962       5.544       5.017       4.543       4.230       4.123       27.154         27.092       6.190       6.028       5.608       5.076       4.596       4.278       4.169       28.067									
22.385       5.783       5.629       5.233       4.741       4.303       4.015       3.917       23.287         23.254       5.868       5.712       5.309       4.807       4.360       4.065       3.965       24.169         24.128       5.949       5.792       5.383       4.873       4.416       4.115       4.013       25.057         25.303       6.051       5.892       5.477       4.957       4.490       4.181       4.076       26.250         26.193       6.123       5.962       5.544       5.017       4.543       4.230       4.123       27.154         27.092       6.190       6.028       5.608       5.076       4.596       4.278       4.169       28.067									
23.254 5.868 5.712 5.309 4.807 4.360 4.065 3.965 24.169 24.128 5.949 5.792 5.383 4.873 4.416 4.115 4.013 25.057 25.303 6.051 5.892 5.477 4.957 4.490 4.181 4.076 26.250 26.193 6.123 5.962 5.544 5.017 4.543 4.230 4.123 27.154 27.092 6.190 6.028 5.608 5.076 4.596 4.278 4.169 28.067									
24.128     5.949     5.792     5.383     4.873     4.416     4.115     4.013     25.057       25.303     6.051     5.892     5.477     4.957     4.490     4.181     4.076     26.250       26.193     6.123     5.962     5.544     5.017     4.543     4.230     4.123     27.154       27.092     6.190     6.028     5.608     5.076     4.596     4.278     4.169     28.067		-							
25.303 6.051 5.892 5.477 4.957 4.490 4.181 4.076 26.250 26.193 6.123 5.962 5.544 5.017 4.543 4.230 4.123 27.154 27.092 6.190 6.028 5.608 5.076 4.596 4.278 4.169 28.067									
26.193 6.123 5.962 5.544 5.017 4.543 4.230 4.123 27.154 27.092 6.190 6.028 5.608 5.076 4.596 4.278 4.169 28.067						-	-		
27.092 6.190 6.028 5.608 5.076 4.596 4.278 4.169 28.067									_
				-					
					-		_		
29.235 6.328 6.167 5.744 5.204 4.713 4.386 4.274 30.243									
30.178 6.379 6.219 5.797 5.254 4.760 4.430 4.317 31.201									
31.139 6.424 6.266 5.846 5.303 4.805 4.473 4.359 32.177									
32.453 6.477 6.322 5.907 5.364 4.864 4.529 4.414 33.510									
33.466 6.509 6.358 5.948 5.407 4.905 4.569 4.453 34.539	-				-				
34.506 6.536 6.388 5.985 5.448 4.945 4.608 4.492 35.596			-						
35.577 6.556 6.412 6.018 5.486 4.984 4.645 4.529 36.683									

МА	CH NO =	10.00	CONE	ANGLE	= 10	00	ANGLE	OF	ATT	CK =	1.00
		D /	D ED	EE-STR	EAM A	١T	PLANE	ANGL	EC.		
-L/RN	0.	30.		60.	90 •		120.	150		180.	SZRN
-L/ (N	0 •	30 •		004	90 •		1500	190	•	100.	27711
37.058	5.574	6.435	6.	054	5.532	5	•032	4.69	3	4.576	38.187
38.213	6.581	6.446	6.	076	5.563	5	• 066	4.72	7	4.610	39.360
39.411	6.583	6.452	6.	092	5.590	5	•098	4.76	0	4.643	40.576
40.654	6.582	6.454	6.	103	5.614	5	.128	4.79		4.675	41.839
42-392	6.576	6.452	6.		5.639			4.83		4.714	43.603
43.760	6.570	6.447	6.	113	5.653	5	-188	4 . 85	8-	4.742	44.992
45.188	6.564	6.441	6.	112	5.663	5	-209	4.88	3	4.769	46.443
47.196	6.554	6.433	6.	107	5.669	5	.231	4.91	. 3	4.800	48.482
48.786	6.547	6.426	6.	102	5.671	5	.243	4.93	32	4.822	50.096
50-451	6.540	6.419	6.	ე96	5.669	5	. 251	4.94	8	4 - 840	51.787
52.192	6.534	6.413	6.		5.666	5	•256	4.96	0	4.855	53.555
54.621	6.526	6.406	6.	084	5.662	5	-258	4.97	1	4.870	56.021
56.525	6.521	6.401	6.	079	5.658	5	•257	4.97	'6	4.877	57.954
58.506	6.51.7	6.397	6.	075	5.654	5		4 , 97		4.881	59.965
60-571	6.514	6.393	6.	071	5-650	5	• 252	4.97	7	4.882	62.063
63:471	6.510	6.389	6.	067	5.646	5	.248	4.97	'5	4.881	65.007
65:-767	6.507	6.386	6.	064	5.643	5	• 245	4.97	'2	4.879	67.338
68-176	6.506	6.384	6.	061	5.640	5	• 242	4.96	9	4.875	69.785
70-710	6.505	6.383	-6∙	059	5-638	5	.240	4.96	6	4.872	72.358
74.300	6.504	6.382	6.	057	5.635	5	•237	4.98	3	4.868	76.004
77125	6.504	6.382	ნ∙	056	5.634	5	• 236	4.96	1	4.866	78-872
80-049	6.505	6.382	6.	055	5.633	5	.234	4.99	9	4.864	81-841
84.106	6.507	6.384	6.	056	<b>∵•632</b>	5	• 233	4.95	7	4.861	85.961
87-273	6.508	6.385	6.	056	5.631	5	•232	4.95	6	4.860	89.176
90 <u>.•</u> 550	6.509	6.386	6.	057	5.631	5	• 231	4.95	5	4.859	92.504
93.941	6.511	6.387	6.	058	5.631	5	•231	4.95		4.858	95.947
98: 646	6.51-2	6.389	6.	059	5.632	5	•230	4.95	3-	4.857	100.725
102.319	6.513	6.390	6.	060	5.633		-230	4.95	3	4.856	104.454
186.119	6.514	6.391	6.	061	5.633	5	• 231	4.95	3	4 • 855	108.313
110.052	6.515	6.392			5.634		.231	4.99		4.855	112.306
115.509	6.517	6.393	-6•		5.635	5	• 232	4.95		4.855	117.848
119.768	6.518	6.394	6.	064	5.636	5	• 23-3	4.95	3	4.855	122-173
124-176	6.518	6.394	6.	064	5.637	5	•233	4.95	4	4 • 855	126.649
130-293	6.519	6.395	6.	065	5.637	5	.234	4.99	4	4.856	132-861
135.068	6.520	6.396	6.	066	5.638	5	- 235	4.95	5	4.856	137.709
140-010	6.520	6.396	6.	066	5.638	5	•236	4.95	6	4.857	142-727
145.125	6.521	6.397	⁻ნ•	067	5.639	5	•236	4.95	6	4 . 858	147-921
152-224	6.521	6.397	6.	067	5.639	5	•237	4.95	57	4.859	155-129
157.766	6.522	6.398	6.	068	5.640	5	-237	4.95	8	4.859	160.757
163.502	6.522	6.398			5.640		• 238	4.95	8	4.860	166.581
169.439	6.522	6.398			5.640		•238	4.95			172.610
177-680	6.523	6.399			5.641		•238	4.95			180.978
184.114	6.52:3	6.399			5.641		•239	4.98			187.511
190-774	6.523	6.399			5.641	5	•239	4.96		4.862	194.274
2.00.019	6.524	6 • 400	6.	069	5.641	5	•239	4.98	51	4.862	203.662

M	4CH .NO =	15.00	CONE ANG	LE = 10.	00 ANG	LE OF AT	TACK =	1.00
		D /	P FREE-S	TDEAM A	T PLANE	ANGLES	<u> </u>	
L/RN	0.	30.	60.	90•	120.		180.	S/RN
			•					
.826	22.900	22.695	22.143	21.410	20.695	20.183	19.999	1.396
1.038	21.634	21.442	20.925	20.236	19.568	19.091	18.919	1.611
1.255	20.320	20.139	19.655	19.010	18.386	17.942	17.782	1.831
1.602	18.388	18,225	17.791	17.215	16.659	16.266		2.184
2.018	16.442	16.296	15.907	15.393	14.900	14.554		2.606
2.639	14.205	14.076	13.731	13.280	12.853	12.556		3.237
3.218	12.715	12.596	12.272	11.855	11.463			3.824
3.866	11.502	11.386	11.071	10.669	10.295			4.483
4.580	19.561	10.444	10.129		9.360		9.021	5.208
5.551	9.709	9.587			8.477			6.194
6.382	9.236	9.108	8.768	8.343		7.696		7.038
7.251	8.908	8.773	8.415	7.969	7.565	7.295	7.202	7.920
8.150	8.697	8.553	8.171	7.700	7.276	6.994	6.897	8.832
9.304	8.563	8.405	7.990	7.481	7.026		6.622	10.005
10.245	8.539	8.368	7.923	7.379	2000	6.578	6.469	10.961
11.197	8.575	8.390	7.911	7.329	6.815		6.363	11.927
12.155	8.659	8.460	7.945		6.774	6.417		12.900
13.356	8.818	8: 600	8.038	7.361	6.769	6.384		14.119
14.316	8.979	8.746	8.146	7.423	6.794	6.387		15.094
15.272	9.166	8-916	8.276	7.507		6.410	5.264	16.065
16.223	9.373	9.106	8.426	7.609	6.904			17.030
17.399	9.658 9.903	9.369 9.596	8 • 635	7.758	7.003			18.225
18.330 19.250	10.159	9.834	8.818			6.585		19-17-0
20.159	10.424	1-0.082	9.012 9.216	8.033 8.185	7•196 7•305	6.661 6.745	6.481 6.557	20.104 21.027
21.280	10.762	10.399	9.480				6.550	22.165
22 • 1.65	11.033	1:0.655	9.400	8.384 8.550	7•45 <u>1</u> 7•574	6 • 859 6 • 956	5.749	23.064
23.040	11.301	10.909	9.914	8.720	7.702	7.057		23.952
23.996	11.564	11.160	10.132	8 892	7.833	7.163	6.939	24.832
24.979	11.879	11.464	10.401	9.118	8.001	7.299	7.065	25.922
25.831	12.119	11.698	10.401	9.118	8.138	7.411		25.787
25.688	12.345	11.920	10.819	9.457	8.277			27.649
27.527		12.130	11.018	9.629	8.416			28.509
28.587	12.795		11.255	9.839	8.598			29.585
29.439	12.966	12.548	11.434	16.093	8.729	7.909	7.634	30.450
-			110707		0.007		7 7004	

10.163

10.317

10.501

10.641

10.772

10.894

11.032

1-1.129

11.214

11.285

8.867

9.004

9.172

9.305

9.434

9.559

9.710

9.825

9.934

10.035

31.320

32.198

33.310

34.214

35.135

36.074 37.280

38.274

39.297

40.353

7.747

7.861

8.004

8.118

8.233

8.348

8.490

8.602

8.713

8.822

8.029

8.149

8.299

8.419

8.538

8.657

8.802

8.917

9.029

9.137

30.295

31.160

32.255

33.146

34.052

34.978

36.165

37.144

38.152

39.191

13.115

13.244

13.375

13.455

13.514

13.554

13.578

13.579

13.567

13.544

12.706

12.845

12.992

13.087

13.162

13.217

13.260

13.275

13.276

13.264

11.602

11.758

11.935

12.059

12.168

12.261

12.353

12.407

12.445

12.468

·MΔ	CH NO =	15.00	CONE AND	GLE = 10.	00 ANGL	E OF ATT	ACK =	1.00
		p /	D FDFF_	STREAM A	T PLANE	ANGLES		
L/RN	ņ.	30.	60.	90.	120.	150.	180.	SZRN
<b>C</b> , (()	<b>\</b>	00.	00.	<b>70 </b>	1204	170 •	1000	<b>37</b> (11
40.539	13.503	13.234	12.476	11.354	10.150	9.267	8.954	41.722
41.660	13.463	13.200	12.468	11.394	10.230	9.364	9.054	42.860
42-817	13.418	13.162	12.450	11.419	10.299	9.454	9.149	
44.016	13.372	13.119	12.424	11.431	10.356	9.536	9.237	45.252
45.569	13.314	13.063	12-383	11.431	10.410	9.624	9.336	46.830
46.858	13.269	13.019			10.439	9.683	9.405	48.138
48-188	13.228	12.977			10.456	9.731	9.463	49.489
49.556	13.192	12.939			10.463	9.768	9.516	50.878
51.321	13.153	12.896	12.222		10.459	9.797	9.554	
52.773	13.127	12.868	12.187		10.447	9.809	9.577	
54.259	13.107	12.844	12.157		10.430	9.813	9.589	
55.784	13.091	12.825	12.130	11.247	10.408	9.808	9.593	57.202
57.749	1.3.0.77	1-2-807	12.103	11.211	10.379	9.794	9.587	59.197
59.375	13.079	12.797	12.085	11.185	10.353	9,777	9.576	60.848
61.055 62.793	13.066 13.064	12.791	12.071	11.162	10.328	9.757	9.560	62.554
65.060	13.066		12.060 12.051	11.142 11.121	10.303 10.274	9•735 9•705	9.541 9.513	64.319 66.621
66.956	13.069	12.788	12.091		10.27.4	9.682	9.490	68.547
68.935	13.074			11.097	1.0.232	9.658	9.466	70.555
71.003	1-3-079	12.795		-	10.233	9.636	9.443	72.656
73.730	13.087	12.803	12.049		10.200	9.612	9.415	75.425
76.037	13.094	12.809			10.190	9.594	9.395	77.768
78.468	13.101	12.816	12.058		10.182	9.579	9.377	
81.035	13.108	12.823	12.064		10.176	9.566	9.362	82.842
84.455	13.117	12.831		11-088	10.173	9.554	9.345	
87.378	13.123	12.838	12.078		10.172	9.547	9.335	
90.485	13.129	12.844	12.084	11-098	1-0 • 173	9.543	9.328	92.438
93.794	13.133	12,849	12.090	11.104	10.176	9.541	9.323	95.798
98 • 243:	13.138	12.854	12.097	11.111	10.182	9.541	9.321	100.316
102.078	13.141	12.858	12.102		10.187	9.543		104.210
106.182	13.144	12.861	12-106		10.192	9.547		108.377
110.582	13.145	12.862	12.109	11.127	10.198	9.552		112.845
116.537	13.146	12.864			10.205	9.559		118.892
121.645	13.146	12.864	12.113	*	10.210	9.564		124.079
126.967	13.147	12.865	12.114	11.138	10.214	9.570		129.483
132.509	13.148	12.866	12.115	11.140	10.218	9.575		135.110
139.760	13.148	12-866	12.116	11.142	10.222	9.581		142-474
145.834	13.149	12.866	12.116	11.143	10.225	9.585		148.640
152-159	13.149	12.867	12.116	11.143	10.226	9.588		155.064
158.749 167.373	13.150 13.150	12.867	12.116	11.143	10.228	9.591		161.755
174.597	13.151	12.868	12.117		10.229	9.593		170.513 177.848
182.123	13.152	12.868 12.869	12.117 12.117	11.143 11.143	10.229 10.229	9•594 9•595		185.489
189.962	13.152	12.870	12.117	11.143	10.229	9.596		193.450
2.0.0 + 22.3	13.153	12.870	12.118	11.143	10.229	9.596		203.869
4.U.U + 2.2.3	T-0 - T-2 2	15.010	rč• řro	T.T.+.T.4.2	10.572	90 230	2013	C 0 2 0 0 2

MACH NO = 50.00	CONE ANGLE =	10.00	ANGLE OF	ATTACK =	1.00

		P /	P FREE-S	TREAM AT	PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150.	180.	S/RN
								-
.826	40.209	39.847	3-8.873	37-578	36316	35.414	35.089	1.396
1.03€	37.922	37.584	36.673	35.459	34.282	33.443	33.139	1.609
1.331	34.722	34.412	3-3.583	32.478	31.412	30.554	30.379	1.908
1.792	30.352	30.082	29.363	28.410	27.495	26.848	26.614	2.376
2.361	26.139	25.906	25.279	24.456	23.674	23.127	22.931	2.955
3.042	22.599	22.389	21.821	21.085	20.393	19.913	i9.742	3.546
3.831	19.781	19.581	19.040	18.348	17.706	17 - 265	17.111	4.448
4.718	17.702	17.591	16.961	16.277	15.648	15.220	15.071	5.348
5.688	16.235	16.027	15.469	14.770	14.131	13.700	13.550	6.333
6.723	15.242	15.022	14.433	13.701	13.037	12.592	12.439	7.384
7.807	14.607	14.369	13.739	12.961	12.261	11.794	11.634	8.484
8.924	14.244	13.984	13.302	12.466	11.720	11.226	11.057	9.619
10.062	14.089	13.804	13.061	12.156	11.355	10.829	10.649	10.774
11.211	14.096	13.783	12.971	11.989	11.126	10.562	10.371	11.941
12.363	14.228	13.884	12.999	11.931	11.001	10.396	10.191	13.111
13.511	14.453	14.078	13.115	11.959	10.957	10.308	10.089	14.276
14.649	14.751	14.343	13.300	12.053	10.975	10.281	10.047	15.432
15.771	15.112	14.668	13.540	12.196	11.042	10.302	10.052	16.572
15.876	15.529	15.046	13.826	12.381	11-147	10.359	10.094	17.693
17.958	15.998	15.473	14.153	12.600	11.282	10.445	10.165	18.793
19.018	16.511	15.942	14.517	12.849	11.443	1-0-555	10.259	19.868
20.053	17.060	16.446	14.914	13.124	11-626	10.685	10.372	20.920
21.065	17.634	16.977	15.337	13.423	11.828	10.833	10.502	21.947
22.054	18.222	17.525	15.780	13.742	12.048	10.995	10.646	22.951
23.021	18.813	18.079	16.238	14.077	12.282	11.170	10.802	23.934
23.970	19.399	18.633	16.703	14.425	12.530	11.357	10.970	24.897
24.902	19.968	19.177	17.171	14.782	12.788	11.555	11.149	25.843
25.819	20.513	19.704	17.535	15.145	13.055	11.763	11.337	26.775
26.725	21.026	20.207	18.091	15.511	13.330	11.978	11.533	27.695
27.623	21.501	20.680	18.534	15.878	13.612	12.202	11.737	28.606
28.515	21.932	21.117	18.960	16.243	13.897	12.432	11.948	29.512
29.404	22.314	21.513	19.363	16.603	14.187	12.667	12.165	30.415
30.293	22.645	21.865	19.741	16.955	14.478	12.908	12.388	31.317
31.185	22.922	22.169	20.089	17.298	14.770	13.154	12.616	32.223
32.034	23.145	22.425	20.404	17.627	15.061	13.403	12.849	33.136
32.992	23.316	22.631	20.683	17.941	15.350	13.655	13.086	34.258
37.912	23.436	22.788	20.924	18.236	15.635	13.910	13.327	34.993
34.849	23.508	22.898	21.125	18.510	15.915	14.166	13.572	35.944
35.806	23.537	22.964	21.286	18.759	16.187	14.422	13.818	36.916
36.787	23.526	22.988	21.406	18.981	16.448	14.677	14.066	37.912
37.795	23.479	22.974	21.486	19.174	16.696	14.929	14.313	38.935
38.833	23.403	22.927	21.527	19.334	16.928	15.175	14.558	39.989
39.903				-				
	23.303	22.851	.21.533	1-9.461	1/:.141	15.413	14.799	41.666
41.005	23.303 23.185	22.851 22.753	21.533 21.505	19.461 19.553	17-141 17-329	15.413 15.639	14.799 15.031	41.076 42.195

ANGLE OF ATTACK =

1.09

CONE ANGLE = 10.00

MACH NO = 20.00

134.596

141.301

148.549

156.175

164.178

172.576

181.388

190.637

200.342

21.906

21.905

21.903

21.904

21.906

21.908

21.909

21.911

21.914

20.568

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20.567

22.410

22.489

22.408

22.409

22.411

22.413

22.415

22.418

22.420

P / P FREE-STREAM AT PLANE ANGLES L/RN 0 . 30. 60. 90. 120. 150. 180. S/RN 43.077 22.950 22.539 21.388 19.634 17.603 16.005 15.419 44.299 44.275 22.820 21.295 19.636 17.715 22.411 16.180 15.611 45.515 45.507 22.696 22.286 21.189 19.610 17.797 16.332 15,783 46.766 46.778 22.583 22.167 21.075 19.560 17.849 16.459 15.933 48,057 48.083 22.483 19.492 17.874 22.060 20.961 16.559 16.059 49.382 49.419 22.399 21.966 19.410 17.873 20.852 16.632 16.158 50.739 50.792 22.330 21.886 20.750 19.319 17.850 16.679 16.232 52.132 52.194 22.276 21.822 20.66.0 19.225 17.808 16.701 16.281 53.557 53.627 20.583 17.752 16.305 22.237 21.772 19.132 16.700 55.011 55.091 22.210 21.736 20.519 19.043 17.685 16.681 16.308 56.498 56.587 22.194 21.711 20.467 18.962 17.611 16.645 16.291 58.917 17.534 58.121 21.696 20.428 18.890 16.595 22.187 16.259 59.574 17.457 59.696 22.186 21,690 20.400 18.827 16.536 16.213 61.174 61.319 21.690 20.381 18.775 17.383 16.470 22.191 16.156 62.822 62.995 17.313 22.201 21.695 20.371 18.732 16.399 16.092 54.524 64.729 22.214 21.705 20.367 18.699 17.250 16.023 16.328 66.285 65.528 22.229 21.717 20.370 18.676 17.194 16.257 15.952 68.111 68.398 20.376 18.660 22.247 21.733 17.146 16.190 15.882 70.011 17.107 70.348 22.267 21.751 20.387 18.652 16.128 15.814 71.990 17.076 72.365 22.287 21.770 28.400 18.650 16.872 15.750 74.059 74.518 21.790 20.416 18.653 17.053 22.308 16.024 15.693 76.225 76.758 22.328 21.811 20.434 18.660 17.038 15.983 15.643 78.499 79.116 22.347 21.830 20.452 18.671 17.030 15.951 15.600 80.893 81.603 22.365 21.849 20.472 18.684 17.028 15.927 15.566 83,419 84.235 20.491 18,700 17.031 22.38.0 21.865 15.911 15.540 86.091 87.025 22.392 20.509 17.038 15.903 88,924 21.880 18.717 15.523 18.735 89.990 17.050 22.403 20.525 15.900 21.892 15.512 91.936 93.150 18.753 22.410 21.901 20.540 17.063 15.904 15.509 95.144 96.525 22.415 21.908 20.551 18.771 17.079 15.912 15.511 98.571 17.097 100.138 22.418 21.912 20.560 18.787 15.923 15.518 102.240 104.013 22.420 21.915 20.567 18.800 17,115 15.938 15.530 106.175 108.179 22.420 21.916 20.571 18.812 17,132 15.955 15.544 110.405 112.667 22.419 21.915 20.573 18.820 17.149 15.974 15.561 114.962 22.417 21.914 20.573 18.526 17.163 117.512 15.992 15.580 119.882 122.752 22.415 21.912 20.572 18,830 17.175 16.010 15.599 125.203 128.431 21.909 20.571 22.41-2 18.831 17.184 16.026 15.616 130.970

18.831

18.830

18.828

18.326

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16.040

16.050

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16.062

16.065 16.066

16.066

16.055

16.063

15.633 137.230

15.646 144.238

15.656 151.398

15.663 159.142

15.667 167.268

15.669 175.795

15.569 184.744

15.668 194.135

15.666 203.989

MA	CH NO =	25.00	CONE	ANGL	E =	1	0.0	0	AN	GLE	0F	TTA	ACF	< =	1.00
								_			•••				
	_		P FRE		rre.				LAN		ANGL				
L/RN	0.	30•	6	0 •		90	•	1	20•		150	•	3	L80.	S/RN
•826	62.467	61.905	60.3	9 =	E 9	36:	4	56.	707		4.99	7	5 <i>1</i> .	493	1.396
1.103	57.670	57.154	55.7			91		52.			0.85			395	1.677
1.412	52.496	52.028	50.7			10		47.			6 <b>.</b> 35			940	1.591
2.001	44.315	43.918	42.8			46		40.			9•19			856	2.589
2.612	38.070	37.724	36.7			57		34.			3 • 63			343	3.209
3.489	32.060	31.749	30.9			82		28.			8 • <b>11</b>			869	4.100
4.333	28.333		27.2			15		25.			4.52			294	4.957
5.459	25.209		24.0			98		22.			1.36			135	6.100
6.473	23.478	23.146	22.2			15		20.			9.48			252	7.130
7.753	22.153	21.801	20.8			66		18.			7 • 89			650	8.430
8 • 855	21.539	21.145	20.1			84		17.			6.96			713	9.549
10.202	21.211	20.771	19.6			53.		17.			6.20			932	10.917
11.333	21.204	20.721	19.4			96		16.			5.78			493	12.065
12.688	21.427	20.890	19.5			84		16.			5.47			157	13.440
13.807	21.757	21.173	19.6			88		16.			5.33			998	14.577
15.130	22.289	21.642	19.9			04		16.			5.28			916	15.920
16.211	22.832	22.128	20.3			241		16.			5-30			917	17.018
17.477	23.599	22.818	20.8			56		16.			5.39			981	18.304
18.505	24.325	23.474	21.3			88		16.			5.51			076	19.348
19.506	25.118	24.195	21.9		19.			17.			5.66			201	20.364
20.672	26.139	25.130	22.6			73		17.			5 - 87			385	21.548
21.616	27.030	25,951	23.2			18		17.			6 -: 08			.563	22.507
22.717	28.123	26.967	24.0	88	20.	75	5-	18.	028	1	6 • 35	5	15.	804	23.625
23.611	29.037	27.823	24.7	89	21	26	0	18.	371	. 1	6.60	4	16.	024	24.532
24.657	30 • 115	28.845	25.6	45	21.	88	9	1-8.	807	1	6.92	6	16.	.310	25.595
25.511	30.988	29.676	26.3	61	22.	429	9	19.	188	1	7 • 21	2	16.	.565	26.462
26.517	31.967	30.635	27.2	11	23	09	0	19.	665	1	7.57	3	16.	889	27.483
27343	32.730	31.390	27.9			64		20.			7 - 88			173	28.322
28 • 32-2	33.564	32.230	28.7			319		50.			8 • 28			528	29.316
29.131	34.183	32.868	29.3			86		21.			8 • : 61			837	30.138
30.098	34.827	33.549	30•€			52		21.			9.03			. 220	31.120
30.903	35.279		30.6			05		21.			9-39			550	31.937
31.872	35.719	34.543	31.2			67	_	22.		_	9.83			958	32.921
32 • 685	36.001	34.881	31.6			15		22•			0.21			307	33.746
33-670	36.242	35.195	32.1		27			23.			0.67			.737	34.747
34 • 50 4	36.365	35.380	32.4			16		23.			1.06	-		.102	35.593
35.351	36.421	35.499	32.7			57		24.			1 • 45			474	36.454
36.390	36.407	35.558	33.0			011		24.			1.92			927	37.509
37.278	36.334	35.543	33.1			33		25.			2.31			307	38.411
38.372	36.181	35.453	33.2			65		25.			2.77			764	39.522
39.311	36.010	35.326	33.2			87		26.			3.19			141	40.475
40.467	35.766	35.125	332			07		26.			3.58			•583	41.648
41-457	35.543	34.926	33-1			19		26.			3 • 93 4 • 74			937	
42.681	35 • 267	34.666	32.9			26		26.			4 • 31			342	43.897
43 • 7-27	35.041	34.444	32 • 8	U /	3 U (	26	2	27.	146	2	4.60	_	636	654	44.959

MACH NO = 25.00 CONE ANGLE = 10.00 ANGLE OF ATTACK = 1.00P / P FREE-STREAM AT PLANE **ANGLES** L/RN 30 • 60. 90. 120. 150 . 180. SIRN 45.013 34.788 34.184 32.582 30.214 27.319 24.905 23.995 46.264 46.115 34.596 33.980 32.382 30.130 27.415 25.121 24.246 47.384 47.474 34.394 33.759 32.142 29.987 27.476 25.332 24.505 48.763 34.253 31.951 48.630 33.600 29.843 27.483 25.466 24.682 49.937 34.117 33.439 31.739 25,575 50.049 29.651 27.443 24.845 51.378 51.261 34.030 33.332 31.582 29.483 27-376 25.625 24.940 52.609 52.742 33.955 33.234 31.421 29.284 27.261 25.639 25.007 54.113 31.309 54.001 33.914 33.175 29.126 27.145 25.615 25.024 55.391 33.129 55.542 33.886 31.204 28.952 26.989 25.550 25.004 56.956 56.852 33.878 33.108 31.138 28.822 26.852 25.470 24.957 58.287 58.190 33.879 33.099 31.089 28.708 26.713 25.371 24.886 59.645 59.837 33.893 28.593 26.551 25.235 24.775 33.102 31.052 61.317 28.516 61.247 33.911 33.114 24.666 31.035 26.423 25.111 62.749 33.940 24.522 62.990 33.135 31.029 28.443 26.283 24.958 64.519 64.489 33.969 33.159 31.034 28.400 26.178 24.830 24.396 66.041 66.350 34.007 33.193 31.050 28.365 26.069 24.681 24.243 67.931 67.957 34.042 33.225 31.069 28.349 25.993 24.565 24.118 69.563 34.085 31.097 69.961 33.265 28.343 25.920 24.438 23.976 71.598 71.699 34.121 33.301 31.126 28.347 25.874 24.344 23.867 73.362 73.875 34.163 33.344 31.163 28.361 25.836 24.248 23.750 75.572 28.379 75.770 34.197 33.379 31.196 25.817 24.182 23.666 77.496 78.153 34.234 31-237 28.406 33.418 25.807 24.121 23.582 79.916 80.239 34.261 33.448 31.271 28.433 25.808 24.084 23.526 82.034 82.873 34.288 33.479 31.311 28.468 25.819 24.055 23.477 84.708 33.501 85.188 34.307 31.341 28.500 25.835 24.043 23.450 87.060 88 - 127 34.323 33.522 31.373 28.539 25.861 24.041 23.43.2 90.044 90.723 34.333 33.534 31.396 28.572 25.887 24.049 23.428 92.680 93.466 34.339 33.543 31.414 28.603 25.917 24.064 23.433 95.466 96.973 34.343 33.550 28-635 31.430 25.954 24.089 23.449 99.026 34.344 100.092 33.552 31.440 25.987 28.660 24.116 23.469 102.193 104.098 34.342 33.552 31.446 28.683 26.025 24.152 23.500 106.261 34.339 33.550 26.055 107.679 31.448 28.697 24.185 23.530 109.898 34.334 33.546 112.303 31.447 28.709 26.087 24.226 23.570 114.592 116.456 34.329 33.541 31.445 28.714 26.109 24.259 23.604 118.810 121.845 34.323 33.535 31.440 28.716 26.129 24.296 23.644 124.282 126.711 34.319 33.530 31.435 28.715 26.140 24.323 23.676 129.223 133.056 34.314 33.525 31.428 28.712 24.349 26.148 23.708 135.665 138.812 34.312 33.521 31.423 28.708 26.151 24.364 23.730 141.510 146.350 34.311 33.519 31.418 28.702 26.150 24.376 23.749 149.165 153.219 34.311 33.518 31.415 28.596 26.148 24.381 23.758 156.140 162.245 34.312 33.519 31.413 28.690 26.142 24.382 23.763 165.305 170.285 34.315 33.522 31.413 28.686 26.137 24.379 23.763 173.469 180.441 34.321 33.527 31.416 28.686 24.375 26.132 23.759 183.782 189.350 34.325 33.531 31.419 28.686 26.129 24.370 23.755 192.828 33.536 31.422 200.605 34.330 28.687 26.126 24.365 23.747 204.257

MACH NO = 30.00CONE ANGLE = 10.00 ANGLE OF ATTACK = PLANE P / P FREE-STREAM AT **ANGLES** L/RN 0. 30. 60. 90. 120. 150. 180. S/RN .826 89.665 88.854 86.671 83.766 80.950 78.938 78.210 1.396 80.005 7-2 - 950 1.102 82.739 81.997 77.350 74.779 72.289 1.676 70.900 68.576 1.498 73.393 72.649 66.336 64.749 64.173 2.078 2.111 61.600 61.045 59.572 57.629 55.774 54.470 53.997 2.700 2.881 51.339 50.865 49.586 47.927 46.362 45.275 44.886 3.483 37.936 3.806 43.455 43.016 41.828 40.311 38.902 37.597 4.422 38.254 37.075 4.682 38.691 35.583 34.211 33.279 32.954 5.312 34.748 34.292 33.071 31.543 30.151 29.213 5.838 28.889 6.486 7.079 32.248 31.757 30.455 28.839 26.407 26.071 7.746 27.381 30.776 30.237 8.376 28.819 27.077 25.520 24.488 24.134 9.062 9.705 30.049 29.449 27.885 25.981 24.298 23.190 22.812 10.412 29.208 27.503 25.442 10.824 29.865 23.634 22.453 22.052 11.548 27.397 30.017 29.284 12.166 25.128 23.154 21.875 21.441 12.911 13.498 30.459 21.078 29.648 27.570 25.083 22.932 21.546 14.263 14.807 31.120 27.944 25.230 22.897 30.224 21-401 20.897 15.592 16.087 31,972 30.980 28.475 25.519 22.998 21.390 20.850 16.892 17.127 32.821 31.739 29.024 25.848 23.162 21.458 20.887 17.948 32.794 18.340 33.996 29.803 26.334 23.435 21.612 21.003 19.180 33.990 26.913 23.781 19.512 35.318 30.700 21.829 21.181 20.371 20.646 36.75. 35.301 31.701 27.574 24.190 22.101 21.410 21,521 21.741 38.276 36.696 32.786 28.307 24.657 22.421 21.685 22.633 37.899 22.626 39.576 33.740 28.965 25.086 22.721 21.945 23.532 23.659 41.145 39.364 34.925 29.801 25.641 23.116 22.291 24.581 42.691 40.825 36.139 30.678 26.236 23.547 24.663 22.670 25.600 25.641 44.183 42.254 37.361 31.586 26.865 24.009 23.079 26.594 26.599 45.592 38.572 32.516 27.523 43.624 24.500 23.517 27.566 27.539 46.895 44.914 39.757 33.458 28.206 25.016 23.979 28,521 28.312 47.885 45.914 34.246 40.712 28.792 25.465 24.383 29.306 48.947 47.009 29.511 30.239 29.231 41-808 35.187 26.024 24.888 30.143 49.863 47.979 42.836 36.116 30.243 26.604 25.414 31.166 31.053 50.626 48.817 43.784 37.025 30.985 27.202 25.961 32.090 31.965 51.236 49.516 44.643 37.904 31.733 27.817 26.527 33.015 32.728 51.629 49.993 45.284 38.607 32.358 28 - 342 27.013 33.790 45.958 33.652 51.966 50.438 39.411 33.105 28.985 27.E12 34.729 33.844 34.590 52.16? 50.745 46.524 40.161 29.639 28.227 35.680 35.544 52.224 50.922 46.977 40.849 34.570 30.302 28.856 36.650 36.521 50.970 52.161 47.314 41.467 35.275 30.970 29.497 37.641 37.353 52.022 50.919 47.507 41.923 35.841 31.527 30.037 38.486 38.377 51.766 50.757 47.630 42.392 36.486 32.188 30.687 39.526 51.432 50.500 47.640 37.083 39.429 42.768 32 - 836 40.595 31.332 47.544 40.508 51.046 50,172 43.045 37.623 33.457 31.963 41.690 41.618 50.631 49.793 47.354 43.222 38.097 34-045 32.571 42.817

43.293

43.290

43.198

38.436

38.769

39.018

34.504

35.006

35.448

33.056

33.599

34.094

43.782

44.963

46.174

42.568

43.731

44.923

50 - 282

49.877

49.502

49.457

49.053

48.664

47.135

46.820

46.468

MACH NO = 30.00CONE ANGLE = 10.00 ANGLE OF ATTACK = 1-.00 P / P FREE-STREAM AT PLANE **ANGLES** L/RN 0. 30 . 60. 90. 120. 150. 180. SZRN 46.149 49.167 48.303 46.100 43.028 39.182 35.826 34.533 47.418 48 - 379 47.407 47.982 45.736 42.795 39.261 36.132 34.910 48.695 48.689 48.643 47.709 45.393 42.520 39.259 36.362 35.217 49.998 49.786 48.486 47.519 45.132 42.269 39.201 36.496 35.418 51.105 51.119 48.341 47.337 44.852 41.959 39.072 36.587 35.592 52.465 52.483 48.242 47.202 44.616 41.655 38.890 36.606 53.850 35.693 53.873 48.180 47.109 44.425 41.367 38.670 36.558 35.723 55.261 55.291 48.151 47.053 44.277 41.105 38.425 36.452 35.688 56.701 56.494 48.146 47.029 44.185 40.910 38.213 35.615 36.327 57.923 57.967 48.158 40.707 47.923 44.108 37.956 36.141 35.481 59.418 59.476 48.185 47.036 44.061 40.539 37.708 35.928 35.306 60.951 61.026 48.228 47.065 44.041 40.406 37.474 35.696 35.100 62.525 62.621 48-278 47.106 44.041 40.305 37.261 35.458 34.875 64.145 63.989 48.325 47.147 44.055 40.244 37.103 35.260 34.678 65.533 65.680 48.387 47.203 44.084 40.197 36.937 35.031 34.441 67.251 48-452 67.432 47.264 44.125 40.173 36.800 34-816 34.208 69.029 69.249 48.518 47.328 44.173 40.169 36.691 34.621 33.989 70.874 71.137 48.584 47.393 44.228 40.132 36.611 34.449 33.787 72.792 72.771 47.447 48.637 44.278 40.204 36.564 34.325 33.636 74.451 74.809 48.697 47.510 44.340 40.240 34.202 36.529 33.478 76.521 76.941 48.751 47.569 44.403 40.284 36.515 34-106 33.347 78.685 79.174 48.799 47.622 44.465 40.335 36.519 34-037 33.243 80-952 81.519 48.838 47.668 44.524 40.392 36.538 33.993 33.167 83.334 83.987 48.859 47.706 44.579 40.451 36.570 33.971 33.117 85.840 86.147 48.888 47.730 44.619 40.501 36.604 33.968 33.093 88.033 88.874 48-905 47.752 44.660 40.560 36.653 33.981 33.084 90.803 91.765 48.914 47.767 44.693 40.616 36.707 34.009 33.093 93.737 94.035 48.918 47.774 44.716 40.667 36.765 34.048 33.118 96.855 98.106 48.917 47.775 44.731 36.825 40.711 34-097 33-156 100-177 101.001 48.914 47.775 44.738 40.741 36.874 34.144 33.196 1:03.116 104.699 48.907 47.770 44.740 40.768 36.930 34.204 33.250 106.871 108.669 48.899 47.762 44.738 40.786 36.980 34.266 33.310 110.903 112.944 48 - 890 47.753 44.732 40.795 37.023 34.328 33.373 115.244 117.562 48.880 47.744 44.724 40.798 37.056 34.387 33•436 11-9•932 121.701 48 - 873 47.736 44.715 40.796 37.076 34.431 33.486 124.136 127.060 48-866 47.727 44.705 40.790 37.090 34.476 33.541 129.578 132.898 48.861 47.720 44.695 40.781 37.096 34.510 33.586 135.505 139.276 44.686 48.858 47.716 40.771 37.096 34.532 33.621 141.982 146.263 48.857 47.714 44.680 40.761 37.090 34.544 33.644 149.077 152.607 48.857 47.713 44.676 40.752 37.083 34.547 33.654 155.518 160.920 48.859 47.714 44.674 40.744 37.072 34.544 33.658 163.960 170.088 48.863 47.717 44.674 40.737 37.060 34=535 33.653 173.270 180.037 48.869 47.723 44.676 40.733 37.050 34.523 33.642 183.372 190.551 48.877 47.731 44.682 40.735 37.043 34.512 33.630 194.048 201.658 48 - 885 47.739 44.689 40.739 37.041 34.502 33.617 205.327

	MACH	NO =	3.50	CON	E ANGL	E =	15.00	)	ANGLE	OF	ATTA	CK =	1.00
			P /	PF	REE-STI	RFAM	АТ	P	LANE	ANGL	ES		
L/	RN	0.	30.	` '	60.		0.		20.	150		180.	S/RN
								_					
		2.410	2.393		.347	2.2			225	2.18		2.166	
		2.394	2.377		• 329	2.2			204	2.16		2.143	1.400
		2-434	2.415		• 369	2.3			243	2.19		2.182	1.502
1.0		2-434	2.417		• 370	2.3			245	2.20		2.185	1.616
1.2		2.418	2.401		• 353	2.2			229	2.18		2.169	1.812
1.4		2.391	2.373		• 327	2.2			204	2.16		2.145	2.038
1.6		2.368	2.351		• 305	2.2			184	2.14		2.126	2.206
1.8		2 • : 334	2-317		• 271	2.2			151	2.10		2.094	2.485
2.1		2.295	2.279		• 233	2.1			115	2.07		2.059	2.790
2.3		2.259	2.252		.207	2.1			090	2.04		2.034	3.009
2.7		2.254	2.236		•190	2.1			070	2.02		2.014	3-362
3.0		2.246	2.229		•182	2.1			061	2.02		2.005	3.743
3.3		2.244	2.227		•179	2.1			057	2.01		2.001	4.012
3.7		2.249	2: 231		.181	2.1			056	2.01		1998	4.439
4.2		2.259	2.241			2.1			062	2.01		2 • 003	4.894
4 • 5		2.268	2.250		• 199	2.1			06.9	2.02		2.009	
4.9		2.285	2-266		.214	2.1			081	2.03		2.020	5.711
5.5		2.305	2.285		• 232	2.1			096	2.05		2034	6.237
5 • 8		2.319	2-299		• 245	2.1			107	2.05		2.044	6.603
6.4		2.340	2320		. 264	2.1			125	2.07		2.061	7-175
6.9		2.361	2.341		- 284	2.2			143	2.09		2.678	7-775
7.3		2.375	2.354		297	2.2			154	2.10		2.089	8.191
8 • 0	-	2.395	2.374		.316	2.2			17-2	2.12		2.106	8.839
8.6		2.414	2392		• 335	2.2			18.8.	2.13		2 • 122	
9.1		2.426	2.404		• 346	2.2			199	2.14		2.132	25.386
9.8		2.442	2.420		• 362	2.2			214	2.16		2.146	10.718
10.5		2.457	2.435		• 377	2.3			228	2.17		2.160	11.485
11.0		2.466 2.479	2.445		• 386	2.3			236	2.18		2.168	12-017
11.8 12.7		2.490	2.457 2.468		•398 •409	2.3			248 259	2.19		2.180	12-847
13.3		2 • 497	2.475		•416	2.3			255 266	2.20		2.191	13.718
14.2		2.506	2.484		• 425	2.3			20 <u>0</u> 275	2.22		2.206	14.318 15.246
15.1		2.513	2.492		• 433	2.3			283	2.23		2.214	16.210
15.7		2.518	2.496		• 437	2.3			28 <sup>-</sup> 8-	2.23		2.219	16.873
16.7		2.524	2-502		• 444	2.3			294	2.24		2.226	17.900
17.7		2-529	2-507		•449	2.3			300	2.24		2.232	18.968
18.5		2.532	2.510		452	2.3			30-3	2.25		2.235	19.705
19.6		2.535	2-514		• 456	2.3			30-8	2.25		2.240	20.849
20.7		2.539	2-517		• 460	2.3			312	2.26		2.244	22.041
21.5		2.541	2-519		•452	2.3			314	2.26		2.246	22-864
22.7	-	2.543	2.522		• 464	2.3			317	2.26		2.249	24.144
24.0		2.545	2.524		.467	2.3			320	2.27		2:252	25-481
24.9		2.546	2.525		468	2.3			321	2.27		2.254	26.406
26.3		2.547	2.526		•470	2.3			323	2.27		2.256	27-845
27.8		2.549	2-528		•471	2.3			325	2.27		2.258	29.350

ļ	ACH NO =	3.50	CONE AND	SEE = 15.	.00 ANG	LE OF A	TTACK =	1.00
							INDA -	1.00
L/RI	٠٥.	30 ·	P FREE-S					
• • • • • • • • • • • • • • • • • • • •		30 •	60.	90-	120.	150.	180.	SZRN
28.833	2.549	2.528	2.472	2.397	0 700			
30.400		2.529	2.473	2.399	2•326 2•327	2.276		
32.041		2.530	2.474	2.400	2.329	2.278		
33.177		2.531	2.474	2.400	2.329	2.279		
34. 948		2.531	2.475	2.401	2.330	2•280 2•280		
36.803		2.532	2.476	2.402	2.331	2.281		
38-088		2.532	2.476	2.402	2.331	2.282		
40.092		2.533	2.476	2.403	2.332	2.282	•	
42.191	,	2.533	2.477	2.403	2.332	2.283	2 • 265 2 • 265	
43.646		2.533	2.477	2.403	2.333	2.283	2.265	
45.915		2.533	2.477	2.404	2.333	2.284	2.266	
48-292		2.534	2-478	2.404	2.333	2.284	2.266	
49.940		2.534	2.478	2.404	2.334	2.284	2.267	
52.511		2.534	2.478	2.404	2.334	2.284	2.267	
55.206		2.534	2.478	2.405	2.334	2.285	2.267	
57.074 59.988		2.534	2-478	2.405	2.334	2.285	2.267	
		2.534	2 • 478	2.405	2.334	2.285	2.268	62.646
63.042 65.160	2.555	2.535	2.479	2.405	2.335	2.285	2.268	
68-464	2.555	2.535	2.479	2.405	2.335	2.285	2.268	68.000
71.928	2•556 2•556	2.535	2.479	2,405	2.335	2-285	2.268	
74.329	2.556	2.535	2.479	2.405	2.335	2 - 286	2.268	75.007
78-076	2.556	2.535	2 • 479	2.405	2.335	2.286	2.268	77.493
82.004	2.556	2.535	2.479	2,405	2.335	2.286	2.268	81.372
84.728	2.556	2.535 2.535	2.479	2.406	2.335	2.286	2 • 268	
88.977	2.556	2.535	2.479	2.406	2.335	2 • 286	2.268	
93.433	2.556	2.535	2•479 2•479	2.406	2.335	2.286	2.268	92.558
96.522	2.556	2.535	2,479	2,406	2.335	2-286	2.268	97.270
101.342	2.556	2.535	2.479	2.406	2.335	2.286	2.268	100.468
106.395	2.556	2.53.5	2.479	2.406	2.335	2.286	2.269	105.459
109.899	2.556	2.535	2.479	2.406 2.406	2.335	2.286	2 • 269	110.698
115.367	2.556	2.535		2.406	2.335	2.286	2.269	114.318
121.099	2.556	2.536	2.479	2.406	2.335	2.286		119.978
125.074	2.556	2.536	2.479	2.406	2.336 2.336	2.286	2.269	125.913
131.276	2.556	2.536	2.479	2.406	2.336	2.286	2.269	130.028
137.779	2.556	2.536	2.480	2.406	2.336	2.286	2.269	136.449
142.288	2.556	3.536	2.480	2.406	2.336	2.286	2.269	143.181
149.324	2.556	2.536	2.480	2.406	2.336	2.286 2.286	2.269	147.849
156.700	2 • 556	2.536	2.480	2.406	2.336	2.286	2.269	155.133
161.816	2.556	2.536	2.480	2.406	2.336	2.286	2 265	162.770
169.797	2.556	2.536	2.480	2.406	2.336	2.286	2.260	168.066
178.166	2.557	2.536	2 • 480	2.406	2.336	2.286	2.260	176.329 184.992
183.968	2.557	2.536	2.480	2.406	2.336	2.285	2.250	104•992 1-01•00-0
193-023	2.557	2.536	2.480	2.406	2.336	2.286		200.374
202.516	2.557	2.536	2.480	2.406	2.336	2 • 286		210.202
							~~~	

MAC	H NO =	5.00	CONE ANGL	E = 15.00	) ANGL	E OF ATT	ACK =	1.00
		D /	D FOFF-ST	REAM AT	PI ANE	ANGLES		
L/RN	0 •	30 •	60.	90•	120.		180.	S/RN
LYKIK	<b>U</b> •	30 •	000	,,,,	1200	2300		
۰741	4.183	4.150	4.064	3.948	3.835	3.754	3.725	1.309
				3.891			3.666	
•980	4.081		3.964	3.850		3.659	3.630	
1.159	3.979		3.864		3.642	3-564	3.536	1.741
1.359	3.861		3.748		3.532	3.457	3.429	1.949
1.581	3.737	-	3.627			3.344	3.317	2.178
1.824	3.619			3.405	3.304	3.233	3.207	2.430
2.183	3.472		3.365	3.261	3.163	3-093	3.068	2.802
2.478	3.376	3.347	3.268	3.165	3.066	2.997	2.972	
2.794	3.317		3.206	3.100	3.000	2.930	2.905	
3.130	3.273	3.242	3.159	3.052	2.950	2.878	2,853	
3.485	3.246	3.214	3.129	3.018	2.913	2.839	2.813	
3.858	3.237	3.204	3.115	3.000	2.891	2.815	2.789	
4.380	3.245	3.210	3.117	2.996	2.882	2.802		
4.789	3.264	3.228	3.131	3.005	2.886	2.804		
5.211	3.292	3.254	3.153	3.022	2.899	2.814		5.936
5.644	3.326	3-287	3.182	3.046	2 • 91:9	2.830		
6.090	3.365	3.4.325	3.216	3.075	2.943	2.852	2.820	6.846
6.546	3.408	3.366	3.253	3.108	2.972	2.877	2.844	7.318
7.012	3.453			3.144		2.906		7.801
7.650			3.348			2.947		8.461
8.140	3.558			3.231				
8.641	3.602		3.430			-		
9.154	3.644			3.305				
9.678			3.508				3.036	
10.215			3.544			· · · · · · · · · · · · · · · · · · ·	3.067	
10.951	3.766		3.588		3.257		3.105 3.133	
11.520	3.797		3.618		3.286	3.173	3.159	
12.105	3.824		3.646		3.31.3	3.199 3.224	3.184	
12.707		3.801	3.671	3.500	3.338	3.0244	3.207	
13.328		3.823		3.524	3.361 3.382	3.268	3.228	
13.970	3.891	3.84-3	3.714	3.545 3.570				15.926
14.860	3.914		3.738		3.425	3-312	3.272	16.648
15.558	3.929	3.881	3•754 3•768	3.586 3.601	3.441	3.328	3.288	
15.284	3.942	3°•:895 3∙90.6	3.781	3.615	3.455	3.343	3.303	
17.042	3.952 3.961	3.915	3.791	3.627	3.468	3356	3.316	
17.834		3.923	3.800	3.627	3.479	3.368	3.329	
18.663 19.534	3.968 3.973	3.923	3.807	3.646	3.489	3.379	3.340	
20.765	3.973	3.934	3.814	3.655	3.501	3.391	3.352	
21.747	3.980	3.936	3.818	3.660	3.508	3.399	3.360	
22.783	3.982	3.938	3.820	3.664	3.513	3.406	3.367	
23.879	3.983	3-939	3 • 822.	3.667	3.517	3.411	3.373	
25.025	3.984	3.948	3.824	3.669	3.520	3.415	3.378	
26.214	3.984	3-94-1	3.825	3.671		3-41-8	3-381	
50 4 C T 4	0 # 30 T	0 · /+ 1	0.05			·		-

MAC	H NO =	5.80	CONE	ANGL	ε:	= 1	5.00		ANG	LE	OF	AT	TACH	< =	1.00	
		<b>D</b> C	D ED	EE-ST	DF.	ΛМ	AT	PI	ANE		ANGL	ES				
	•		r rk	60.	KL.	90			20.		150		1	L80.	S/RN	
L/RN	0 •	30		00•		90	•									
27 977	3.985	3.942	3.	826	3	-67	2	3.	525		3.42	21	3	384	29.398	
27.873	3.986	3.943		827		. 67		-	526		3.42	22	3	386	30.746	
29.175 30.528	3.986	3.943		827		.67			527		3.42		3	.387	32.147	
	3.986	3.943		828		.67			528		3.42	24	3.	388	33.604	
31.936	3.987	3.944		828		. 67			529		3.42	25	3	.388	35.120	
33.400 34.924	3.987	3.944		828		. 67			529		3.42	26	3	.389	36.697	
37.052	3.987	3.944		829		. 67			530		3.42	27	3.	390	38.901	
38.724	3.988	3.945		829		. 67			530		3.48	27		.390	40.632	
40.465	3.988	3.945		829		. 67			531		3.4	28	3	.391	42.434	
42.277	3.988	3.945		830		. 67			531		3.4	28	3	. 391	44.310	
44.163	3.988	3.945		830		. 67			531		3.4	28		• 392	46.263	
46.127	3.989	3.946		830		. 67			532		3.4	29	3	• 392	48.296	
48.171	3.989	3.946		830		. 67			532		3.4	29	3	. 392	50.412	
51.029	3.989	3.946		831		.67			532		3.4	29		. 392		
53.275	3.990	3.947		831		• 67		3.	532		3.4	29	3	• 393		
55.613	3.990	3.947		831		. 67			533		3.4	<b>3</b>		• 393		
58.048	3.990	3.947		. 832		67		3.	533		3.4	3 O		• 393		
60.584	3.991	3.948		.832		67		3.	533		3.4	30		. 393		
63.224	3.991	3.948		.832	3	.68	30	3.	533		3.4	<b>30</b>		• 394		
66.914	3.991	3.94.8		. 832		68		3.	534		3.4	31		.394		
69.815	3.992	3.948		.833	3	6.68	30	3.	534		3.4			.394		
72.837	3.992	3.949		.833		3.68		3.	534		3.4			.394		
75.983	3.992	3.949		.833	3	68	30	3•	534		3.4		3	• 394	79.205	
79.259	3.992	3.949		. 833	3	3.68	31	3.	534		3.4			•395		
82.670	3.992	3.949		. 833	3	3.68	31		534		3.4			.395		
87.439	3.992	3.949		.834	3	3.68	31		535		3.4			. 395		
91.189	3.993	3.950	3	.834	3	3.6	81		535		3.4			395		
95.094	3.993	3.950	3	.834	3	3.68	31		535		3.4			• 395		
99.161	3.993	3.950	3	. 834	;	3 • 6	81		535		3.4				103.201	
103.396	3.993	3-950	3	. 834		3.6			535		3.4				107.585	
107.807	3.997	3.95.0	3	. 834		3 - 6			535		3.4				112.152	
112.400	3.993	3.950		.834		3.6			535		3.4				116.907	
118.821	3.993	3.950		. 834		3.6			535		3.4	32			123.555	
123.871	3.993	3.950		.834		3.6			535		3.4				128.782	
129.129	3.993	3.950		8.834		3 <b>.</b> 6			535		3.4				134.226	
134.606	3.993	3.950		8.834		3.6			535		3.4				139.896	
140.309	3.994	3 • 95.0		8.834		3 • 6			535		3.4				145.80	
146.249	3.994	3.950		8.835		3.6			535		3.4				151.95	
154.553	3.994	3.951		8.835		3.6			535			+32			160.547 167.308	
161.084	3.994	3.951		8.835		3.6			535			+32			174.34	
167.884	3.994	3.951		8.835		3.6			• 535		-	+32			181.68	
174.967	3.994	3.951		8.835		3.6			•536			432			189.31	
182.344	3.994			835		3.6			•536			432			197.27	
190.026	3.994			835		3.6			•536			432 432			208.39	
200.767	3.994	3.951		3.835		3.6	62	5	•536	)-	3.0	432	,	U • U-71		_

MA	CH NO =	10.00	CONE ANG	LE = 15.	00 ANGI	LE OF AT	TACK =	1.00
		D /	P FREE-S	TOCAM A	T PLANE	ANGLES		
-1 40M	•				120.			CADN
L/RN	0.	30.	60.	90•	1200	150.	180.	S/RN
.741	14.482	14.362	14.041	.13.611	13.193	12.894	12.786	1.389
.907	13.940	13.824	13.512	13.095	12.689	12.399	12.295	1.481
1.115	13.201	13.090	12.791	12.392	12.006	11.731	11.631	1.696
1.356	12.393	12.287	12.004	11.627	11.262	11.003	10.910	1.945
1.704	11.395	11.295	11.027	10.672	10.331	10.090	10.003	2.306
2.018	10.680	10.582	10.321	9.978	9.650	9.420	9.336	2.631
2.455	9.891	9.795	9.538	9.203	8.885	8.663	8.583	3.983
2.934	9.337	9.239	8.977	8.636	8.316	8.093	8.013	3.579
3.343	9.025	8.922	8.648	8.296	7.965	7.736	7.655	4.002
3-877	8.785	8.676	8.383	8.009	7.659	7.418	7.334	4.556
4.319	6.695	8.578	8.266	7.869	7.500	7.247		
4.882	8.684	8.557		7.788	7.391	7.119	7.024	5.596
5.451	8.766	8.626	8.256	7.789	7.359	7.067	6.964	6.185
5.909	8.883	8.733	8.337		7.378	7.067	6.959	6.659
6.480	9.081	8.917	8.485	7.942	7.447	7.111	6.994	7.250
6.936	9.268	9.093	8.635	8.057	7.530	7.174	7.050	7.722
7.502	9.526	9.339	8.848	8.227	7.661	7.279	7.147	8.309
7.953	9.741	9.546	9.031	8.380	7.783	7.381	7.241	8.775
8.511	10.014	9.809	9.269	8.582	7.951	7.524	7.375	9.353
9.063	10.286	10.073	9.510	8791	8.129	7.678	7.522	9.925
9.502	10.502	10.281	9.701	8.960	8 • 274	7.808	7.645	10.37-9
10.045	18.756	10.538	9.938	9.170	8.458	7.973	7.803	10.941
10.477	10.973	10.740	10.124	9.336	8.605	8.106	7.931	11.388
11.014	11.223	10.984	1-0.353	9.541	8.787	8.272	8.091	11.944
11.549	11.459	11.217	10.574	9.742	8.967	8.437	8.251	12.498
11.976	11.635	11.391	10.743	9.899	9.110	8.568	8.378	12.940
12.512	11.835	11.593	10.943	10.089	9.284	8.730	8.535	13.495
12.943	11.978	11.738	11.092	10-235	9.421	8.857	8.659	
1-3.486	12.133	11.899	11.262	10.408	9.586	9.014	8.813	
13.926	12.237		11.384	10.537	9.713	9.137	8.933	
14.484	12.342	12.122	11.517	10.685	9.865	9.285	9.079	
15.053	12.420	12.209		10.816	10.005	9.427	9.220	16.126
	12.465				10.111			
16.116	12.500	12.304	11.765	11.005	10.229	9.661	9.455	17.226
16.606	12.513	12.324	11.803	11.069	10.313	9.754	9.551	17-734
17.239	12.515	12.333	11.833	11.130	10.402	9.859	9.660	18.389
17.897	12.504	12.328	11.845	11.171	10.474	9.950	9.757	19.070
18.443	12.488	12.315	11.845	11.191	10.518	10.011	9.823	19.635
19.153	12.462	12.293	11.833	11.203	10.558	10.072	9.892	20.376
19.745	12,439	12.271	11.818	11.202	10.57-7	10.109	9.936	20.983
20.517	12.409	12.242	11.795	11.192	10.589	10.140	9.975	21.783
21.162	12.384	12.218	11.773	11.178	10.588	10.154	9.994	22.450
22.003	12.354	12.189	11.745	11.156	10.579	10.160	10.006	23.320
22:883	12-327	12.161	11.717	11.131	10.563	10.154	10.006	24.232
23.616	12-308	12.141	11.696	11.111	10.546	10.144	9.999	24.991

MACH NO = 10-00 CONE ANGLE = 15.00 ANGLE OF ATTACK = 1.00 P / P FREE-STREAM AT PLANE ANGLES L/RN 0. 30. 60. 90. 120. 150. S/RN 180. 24.571 12.287 12.119 11.672 11.085 10.524 18.127 9.984 25.979 25.368 12.275 12.105 11.654 11.066 10.505 10.110 9.969 26.804 26.409 12.263 12.092 11.637 11.044 10.482 9.949 10.088 27.882 27.507 12.255 12.083 11.623 11.025 10.460 10.966 9.927 29.019 28.431 12.252 12.078 11.615 11.013 10.444 10.049 9.910 29.976 29.650 12.251 12.076 11.609 11.000 10.427 10.029 9.889 31.237 30.681 12.253 12.076 11.606 10.993 10.415 10.015 9.874 32.305 32.048 12.256 12.079 11.606 10.987 10.403 9.999 9.857 33.720 33,211 12.260 12.083 11.608 10.985 10.396 9.989 9.846 34.924 34.760 12.266 12.083 11.612 10.986 9.979 10.391 9.834 36.528 36.428 12.272 12.094 11.617 10.988 10.390 9.973 9.827 38.255 37.857 12.277 12.099 11.621 10.991 10.390 9.971 9.823 39.734 39.774 12.283 12.105 11.627 10.997 9.970 9.821 10.393 41.719 41.423 12.288 12.110 11.632 11.001 10.396 9.972 9.822 43.426 43.644 12.293 12.115 11.638 11.007 9.825 10.401 9.976 45.725 46.061 12.298 12.120 11.643 11.012 10.407 9.980 9.829 48.227 48.151 12.301 12.123 11.646 11.016 10.411 9.984 9.833 50.391 59.967 12.303 12.126 11.650 11.021 10.416 9.989 9.838 53.306 53.339 12.306 12.128 11.653 11.024 10.420 9.994 9.842 55.763 56.449 12.308 12.131 11.656 11.028 9.847 10.425 9.998 58.982 59.058 12.309 12.133 11.658 11.030 10.428 10.002 9.850 61.683 62.478 12.311 12.134 11.659 11.032 10.430 10.005 9.854 65.224 66.084 12.312 12.135 11.661 11.034 10.433 10.008 9.856 68.957 69.110 12.313 12.136 11.661 11.035 10.434 10.010 9.858 72.090 73.078 12.314 12.137 11.662 11.036 10.435 10.011 9.860 76.198 76.408 12.315 12.138 11.663 11.037 10.436 10.012 9.861 79.645 80.774 12.316 12.139 11.664 11.037 10.437 10.013 9.862 84.166 85.380 12.317 12.140 11.665 11.038 10.437 10.014 9.862 88.934 89.245 12.318 12.141 11.665 11.038 10.438 10.014 9.863 92.935 94.315 12.318 12.141 11.666 11.039 10.438 10.015 9.863 98.184 98.570 12.319 12.142 11.666 11.039 10.438 10.015 9.864 102.589 104.151 12.320 12.142 11.667 11.040 9.864 108.366 10.439 10.015 108.835 12.320 12.143 11.667 11.040 10.439 9.864 113.216 10.015 114.978 12.321 12.143 11.668 11.040 10.439 9.864 119.576 10.016 121.459 12.321 12.144 11.668 11.041 10.439 9.864 126.286 10.016 125.899 12.321 12.144 11.668 11.041 10.440 10.016 9.864 131.917 134.034 12.322 12.145 11.669 11.041 10.440 10.016 9.864 139.304 140.024 12.322 12.145 11.669 11.042 10.440 10.016 9.865 145.505 147.880 12.322 12.145 11.669 11.042 10.440 10.016 9.865 153.638 156.167 12.322 12.145 11.670 11.042 10.440 10.016 9.865 162.218 163.124 12.322 12.145 11.670 11.042 10.441 10.016 9.865 169.420 172.249 12.323 12.146 11.670 11.042 10.441 10.017 9.865 178.867 179.908 12.323 12.146 11.670 11.043 10.441 10.017 9.865 186.796 189.955 12.323 12.146 11.670 10.441 11.043 9.865 197.198 10.017 200.554 12.323 12.146 11.670 11.043 10.441 10.017 9.865 208.171

MACH NO = 15.00 CONE ANGLE = 15.00 ANGLE OF ATTACK = 1.00

		P /	P FREE-S	TREAM A	T PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150.	180.	S/RN
.741	31.625	31.361	30.649	29.697	28.770	28.109	27.870	1.309
• 951	29.910	29.658	28.978	28.071	27.191	26.563	26.336	1.526
1.162	28.128	27.887	27.239	26.376	25.542	24.948	24.732	1.744
1.538	25.310	25.087	24.492	23.703	22.943	22.405	22.210	2.134
1.906	23.137	22.925	22.359	21.613	20.899	20.397	20.216	2.515
2.407	20.894	20.689	20.142	19.428	18.750	18.276	18.107	3.334
2.869	19.545	19.337	18.782	18.062	17-385	16.914	16.747	3.512
3.464	18.435	18.214	17.625	16.869	16.163	15.677	15.505	4.128
3.983	17.896	17.659	17.029	16.225	15.479	14.968	14.788	4.665
4.513	17641	17.383	16.700	15.834	15.035	14.491	14.300	5.214
5.156	17.635	17.347	16.587	15.630	14.754	14.160	13.953	5.880
5.692	17.828	17.510	16.677	15,633	14.682	14.041	13.818	6.434
6.330	18.239	17.884	16.956	15.797	14.748	1-4.043	13.799	7.095
6.854	18.686	18.301	17.295	16.037	14.900	14.139	13.876	7.638
T.473	19.294	18.877	17.785	16.413	15:172	14.341	14.054	8.278
7.979	19.829	19.388	18.231	16.774	15.451	14.563	14.256	8.802
8.572	20.490	20.020	18.790	17.239	15.825	14.874	14.545	9.417
9.057	21.057	20.562	19.269	17.641	16.157	15.157	14.810	9.918
9.531	21.641	21.119	19.760	18.053	16.500	15.454	15.090	10.409
10.088	22.357	21.805	20.365	18.559	16.921	15.821	15.439	10.985
10-543	22.955	22.381	20.881	18.992	17.281	16.134	15.737	11.456
11.079	23.656	23.063	21.503	19.523	17.724	16.519	16.103	12.312
11.520	24.211	23.609	22.015	19.971	18.102	16.849	16.415	12.468
12.042	24.826	24.223	22.609	20.508	18.564	17.254	16.800	13.009
12.475	25.287	24.689	23.07-7	20.947	1-8952	17.598	17.129	13.457
12.906	25.693	25.107	23.512	21.372	19.339	17.947	17,463	13.903
13.424	26.106	25.540	23.984	21 -857	19.797	18.369	17.869	14.439
13.857	26.386	25.840	24.329	22.234	20.169	18.719	18.208	14.887
14.381	26.646	26.128	24.683	22.645	20: 595	19.132	18.613	15.430
14.822	26.802	-26.309	24.924	22.949	20.929	19.467	18,944	15.887
15.361	26.923	26.459	25.151	23.264	21.299	19.851	19.328	16.444
15.818	26.975	26.533	25.289	23.482	21.577	20.153	19.634	16.918
16.379	26.986	26.569	25.398	23.691	21.869	20.486	19.977	17.499
16.860	26.961	26.561	25.444	23.820	22.075	20.736	20.239	17.996
17353	26.911	26.526	25.456	23.911	22.246	20.958	20.476	18.507
17-965	26.824	26.454	25.432	23.972	22.404	21.182	20.722	19.140
18.492	26.735	26.375	25.385	23.986	22.496	21.333	20.892	19.686
19-147	26.613	26.262	25.304	23.967	22.562	21.468	21.053	20.364
19.712	26.505	26.159		23.926	22.582	21.544	21.150	20.949
20.413	26.377	26.031	25.106	23.853	22.571	21.593	21.223	21.674
21-017	2E.276	25.928		23.776	22.537	21.602	21.251	22.300
21.639	26.185	25.833		23.690	22.485	21.587	21.252	22.944
22.411	26.093	25.734	24.792	23.579	22.404	21.542	21.224	23.743
23-074	26.033	25.666		23.486	22.326	21.487	21.180	24.430
23.898	25.978	25.603	24.622	23.380	22.224	21.406	21.109	25.282

144.739       26.160       25.758       24.678       23.254       21.888       20.925       20.581       150.386         152.200       26.160       25.758       24.679       23.254       21.888       20.926       20.581       158.110         161.652       26.161       25.759       24.679       23.255       21.889       20.926       20.582       167.896         169.967       26.161       25.759       24.679       23.255       21.889       20.926       20.582       176.505         180.502       26.161       25.759       24.680       23.256       21.890       20.927       20.582       187.411	M	ACH NO =	15.00	CONE A	NGLE	= 19	5.00	ANG	LE OF	AT1	ACK =	1.08
L/RN         0.         30.         60.         90.         120.         150.         180.         S/RN           24.608         25.946         25.565         24.565         23.301         22.138         21.329         21.038         26.018           25.493         25.9513         25.525         24.483         23.219         22.037         21.231         20.944         26.934           27.224         25.913         25.515         24.481         23.163         21.990         21.148         20.626         27.730           28.941         25.913         25.515         24.452         23.081         21.087         20.980         20.668         29.996           28.941         25.947         25.541         24.452         23.081         21.738         20.953         20.668         29.996           31.020         25.947         25.578         24.452         23.053         21.770         20.779         20.458         33.634         21.710         20.752         20.414         37.759         26.034         25.566         24.554         23.059         21.703         20.779         20.458         33.632         21.770         20.752         20.414         37.771         36.994         26.074			D /	D EDEC	C C C C C C C C C C C C C C C C C C C	- 4 44			441.0			
24.608	I /PN	n .										
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25.493	24.608	25.946	25,565	24.56	5 27	7.70	. 33	478	24 7	20	04 076	06 04:0
26.262 25.913 25.520 24.483 23.163 21.960 21.148 20.862 27.730 27.224 25.913 25.515 24.461 23.111 21.879 21.052 20.765 23.726 28.941 25.933 25.515 24.451 23.061 21.778 20.916 20.619 30.503 30.048 25.947 25.541 24.456 23.041 21.778 20.916 20.619 30.503 30.048 25.947 25.541 24.456 23.049 21.778 20.916 20.619 30.503 31.040 25.964 25.556 24.463 23.049 21.778 20.916 20.619 30.503 31.020 25.964 25.556 24.468 23.047 21.717 20.813 20.501 32.656 32.253 25.947 25.578 24.465 23.053 21.703 20.779 20.458 33.932 33.341 26.008 25.598 24.501 23.065 21.700 20.761 20.35 35.059 34.729 26.034 25.626 24.526 23.079 21.704 20.752 20.419 36.496 37.269 26.074 25.666 24.556 23.059 21.704 20.752 20.414 37.771 37.269 26.016 25.700 24.608 23.158 21.765 20.771 20.427 40.864 40.452 26.106 25.700 24.608 23.158 21.765 20.855 20.459 42.420 44.339 26.117 25.713 24.625 23.018 21.787 20.865 20.458 44.430 44.339 26.117 25.713 24.655 23.018 21.787 20.865 20.458 44.430 44.339 26.117 25.712 24.656 23.123 21.867 20.885 20.458 44.430 46.407 26.127 25.725 24.645 23.213 21.829 20.848 20.500 48.585 25.727 24.656 23.223 21.855 20.868 20.520 50.707 53.562 26.129 25.729 24.653 23.233 21.867 20.900 20.556 55.993 26.103 25.728 24.653 23.233 21.867 20.900 20.556 55.993 26.203 25.727 24.652 23.233 21.867 20.900 20.556 55.993 26.203 25.728 24.653 23.233 21.867 20.909 20.556 55.993 27.858 20.459 25.727 24.656 23.233 21.867 20.909 20.556 55.993 20.556 26.129 25.729 24.653 23.235 21.875 20.916 20.574 62.298 25.727 24.656 23.233 21.867 20.919 20.577 82.056 20.577 82.910 26.133 25.728 24.656 23.235 21.876 20.919 20.577 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.057 82.												
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34.729       26.034       25.624       24.524       23.079       21.704       20.752       20.419       36.496         35.961       26.055       23.645       24.545       23.095       21.713       20.752       20.414       37.771         38.949       26.094       25.666       24.566       23.137       21.745       20.771       20.427       40.864         40.452       26.106       25.700       24.663       23.158       21.763       20.785       20.439       42.420         44.139       26.122       25.720       24.625       23.181       21.787       20.868       20.476       46.238         46.407       26.127       25.725       24.645       23.213       21.807       20.848       20.500       48.585         51.132       26.129       25.729       24.652       23.230       21.869       20.848       20.500       48.585         54.652       26.129       25.729       24.653       23.233       21.872       20.868       20.541       53.477         53.562       26.129       25.729       24.653       23.235       21.875       20.909       20.556       55.993         59.652       26.133       25.727	33.341	26.008										
35.961	34.729	26.034										
38.949	35.961	26.055	25.645									
38.949       26.094       25.686       24.590       23.137       21.745       20.771       20.427       40.864         40.452       26.106       25.700       24.608       23.158       21.763       20.805       20.439       42.420         44.139       26.122       25.720       24.636       23.198       21.807       20.825       20.476       46.238         48.450       25.127       25.725       24.645       23.213       21.829       20.848       20.500       48.585         751.132       26.129       25.729       24.652       23.231       21.867       20.888       20.500       48.585         751.132       26.129       25.729       24.652       23.233       21.867       20.988       20.500       55.993         751.132       26.129       25.729       24.653       23.235       21.876       20.909       20.566       58.717         53.562       26.129       25.728       24.652       23.235       21.876       20.919       20.566       58.719         59.652       26.128       25.727       24.652       23.235       21.876       20.919       20.576       65.961         62.803       25.728       24.652	37.269	26.074	25.666									
40.452		26.094	25.686	24.59								
44.333       26.117       25.713       24.625       23.181       21.787       20.806       20.458       44.430         46.407       26.127       25.720       24.636       23.198       21.807       20.825       20.476       46.238         48.456       26.128       25.727       24.649       23.222       21.845       20.868       20.500       48.585         51.132       26.129       25.729       24.652       23.230       21.859       20.868       20.541       53.477         53.562       26.129       25.729       24.652       23.233       21.867       20.900       20.556       55.993         56.195       26.129       25.729       24.652       23.235       21.875       20.909       20.566       58.719         56.9652       26.128       25.727       24.652       23.235       21.876       20.919       20.578       65.561         66.824       26.130       25.728       24.652       23.235       21.876       20.918       20.579       73.383         74.836       26.137       25.735       24.652       23.237       21.876       20.919       20.577       73.383         74.837       26.140       25.738			25.700	24.60								
46.407 26.122 25.720 24.636 23.198 21.807 20.825 20.476 46.238 48.456 26.128 25.727 24.645 23.213 21.829 20.848 20.500 48.585 51.132 26.129 25.729 24.652 23.230 21.859 20.888 20.520 50.707 53.552 26.129 25.729 24.653 23.233 21.867 20.909 20.556 58.719 26.195 26.129 25.728 24.653 23.235 21.872 20.909 20.556 58.719 59.652 26.129 25.728 24.653 23.235 21.872 20.909 20.556 58.719 262.803 25.128 25.727 24.652 23.235 21.875 20.916 20.574 62.298 62.803 25.128 25.727 24.652 23.235 21.875 20.916 20.578 65.561 66.824 26.330 25.728 24.652 23.234 21.876 20.918 20.578 65.561 66.824 26.330 25.732 24.652 23.234 21.876 20.919 20.579 69.723 70.359 26.133 25.732 24.652 23.234 21.876 20.919 20.579 69.723 74.836 26.137 25.735 24.657 23.235 21.876 20.919 20.579 87.3383 74.836 26.137 25.735 24.657 23.235 21.876 20.919 20.579 82.095 82.910 26.143 25.741 24.661 23.239 21.876 20.919 20.577 82.095 82.910 26.143 25.741 24.661 23.239 21.876 20.919 20.576 86.376 88.148 26.146 25.744 24.664 23.241 21.878 20.918 20.575 91.799 92.755 26.149 25.747 24.667 23.237 21.876 20.918 20.575 91.799 92.755 26.149 25.747 24.667 23.243 21.879 20.918 20.576 86.376 88.148 26.152 25.751 24.667 23.243 21.880 20.919 20.576 107.924 110.226 26.155 25.755 24.667 23.243 21.880 20.919 20.576 107.924 110.226 26.155 25.755 24.667 23.243 21.880 20.919 20.576 107.924 110.226 26.155 25.756 24.677 23.253 21.887 20.922 20.578 120.577 123.190 26.158 25.756 24.677 23.255 21.886 20.922 20.578 120.577 123.190 26.158 25.756 24.677 23.255 21.886 20.922 20.580 134.675 136.258 26.159 25.756 24.677 23.255 21.886 20.922 20.580 134.675 136.258 26.159 25.756 24.677 23.255 21.888 20.922 20.580 134.675 136.258 26.160 25.758 24.679 23.255 21.888 20.922 20.580 134.675 169.967 26.161 25.759 24.6679 23.255 21.888 20.922 20.581 158.110 169.967 26.161 25.759 24.6679 23.255 21.889 20.922 20.582 176.505 180.502 20.926 20.582 176.505 24.6679 23.255 21.889 20.926 20.582 176.505 24.6679 23.255 21.889 20.926 20.582 176.505 24.6679 23.256 21.889 20.926 20.582 176.505 24.6679 23.256 21.889 20.926 20.				24.52	5 23	.181						
48.447				24.63	6 23	.198	21.	807	20.82			_
48.495       26.128       25.727       24.649       23.222       21.845       20.868       20.520       50.707         51.132       26.129       25.729       24.652       23.230       21.859       20.888       20.541       53.477         56.195       26.129       25.729       24.653       23.233       21.872       20.909       20.566       58.719         59.652       26.128       25.727       24.652       23.235       21.875       20.916       20.574       62.298         62.803       25.128       25.727       24.652       23.234       21.876       20.918       20.578       65.561         66.824       26.133       25.728       24.652       23.234       21.876       20.918       20.579       69.723         70.359       26.133       25.732       24.654       23.235       21.876       20.919       20.577       73.038         78.774       26.140       25.738       24.657       23.235       21.876       20.919       20.577       82.095         82.910       26.143       25.741       24.661       23.237       21.876       20.919       20.577       82.095         82.910       26.152       25.754						-213	21.	829	20.84			
53.562       26.129       25.729       24.653       23.233       21.867       20.900       20.556       55.993         56.195       26.129       25.728       24.653       23.235       21.872       20.909       20.566       58.719         59.652       26.128       25.727       24.652       23.235       21.875       20.916       20.574       62.298         62.803       25.728       24.652       23.234       21.876       20.919       20.578       65.561         66.824       26.133       25.732       24.654       23.235       21.876       20.919       20.578       69.723         70.359       26.133       25.732       24.657       23.235       21.876       20.919       20.578       73.383         78.774       26.140       25.738       24.659       23.237       21.876       20.919       20.577       82.095         82.910       26.143       25.741       24.661       23.239       21.877       20.918       20.576       86.376         88.148       26.149       25.744       24.664       23.243       21.879       20.918       20.575       91.799         98.591       26.152       25.753       24.671				-		.222	21.	845	20.86	58-	20.520	
56.195       26.129       25.728       24.653       23.235       21.872       20.909       20.566       58.719         59.652       26.128       25.727       24.652       23.235       21.875       20.916       20.574       62.298         62.803       25.128       25.727       24.652       23.234       21.876       20.918       20.579       65.561         66.824       26.130       25.728       24.652       23.235       21.876       20.919       20.579       69.723         70.359       26.133       25.732       24.654       23.235       21.876       20.919       20.579       73.383         74.836       26.137       25.735       24.657       23.235       21.876       20.919       20.578       78.018         78.774       26.140       25.738       24.657       23.237       21.877       20.919       20.577       82.095         82.910       26.143       25.741       24.661       23.232       21.877       20.918       20.575       91.799         92.755       26.149       25.741       24.666       23.241       21.878       20.918       20.575       96.569         98.591       26.152       25.755						-		859	20.8	38	20.541	
59.652       26.128       25.727       24.652       23.235       21.875       20.916       20.574       62.298         62.803       25.128       25.727       24.652       23.234       21.876       20.918       20.578       65.561         66.824       26.130       25.728       24.652       23.234       21.876       20.919       20.579       69.723         70.359       26.133       25.735       24.657       23.235       21.876       20.919       20.578       78.018         78.774       26.140       25.735       24.659       23.237       21.876       20.919       20.577       82.095         82.910       26.143       25.741       24.661       23.237       21.876       20.918       20.576       86.376         88.148       26.146       25.744       24.661       23.239       21.877       20.918       20.575       96.569         98.591       26.152       25.749       24.667       23.243       21.888       20.918       20.575       96.569         103.724       26.154       25.751       24.671       23.247       21.881       20.929       20.575       102.610         103.724       26.159       25.753											20.556	
62.803											20.566	58.719
66.824 26.130 25.728 24.652 23.234 21.876 20.919 20.579 69.723 70.359 26.133 25.732 24.654 23.235 21.876 20.920 20.579 73.383 74.836 26.137 25.735 24.657 23.236 21.876 20.919 20.578 78.018 78.774 26.140 25.738 24.659 23.237 21.876 20.919 20.577 82.095 82.910 26.143 25.741 24.661 23.239 21.877 20.918 20.576 86.376 88.148 26.146 25.744 24.664 23.241 21.878 20.918 20.575 91.799 92.755 26.149 25.747 24.667 23.243 21.879 20.918 20.575 96.569 98.591 26.152 25.749 24.669 23.245 21.880 20.919 20.575 102.610 103.724 26.154 25.751 24.671 23.247 21.881 20.920 20.576 107.924 110.226 26.155 25.753 24.673 23.248 21.883 20.921 20.577 114.656 115.945 26.157 25.754 24.674 23.250 21.884 20.922 20.578 120.577 123.190 26.158 25.756 24.674 23.250 21.884 20.922 20.578 120.577 129.563 26.159 25.756 24.676 23.251 21.885 20.922 20.578 120.577 129.563 26.159 25.756 24.677 23.252 21.886 20.924 20.580 134.675 136.258 26.159 25.758 24.677 23.252 21.886 20.924 20.580 141.606 144.739 26.160 25.758 24.677 23.252 21.888 20.924 20.580 141.606 152.200 26.160 25.758 24.679 23.255 21.888 20.924 20.580 141.606 152.200 26.160 25.758 24.679 23.255 21.888 20.925 20.581 150.386 152.200 26.161 25.759 24.679 23.255 21.889 20.926 20.581 158.110 161.652 26.161 25.759 24.679 23.255 21.889 20.926 20.582 167.896 169.967 26.161 25.759 24.669 23.255 21.889 20.926 20.582 167.896 169.967 26.161 25.759 24.669 23.255 21.889 20.926 20.582 167.896 169.967 26.161 25.759 24.669 23.255 21.889 20.927 20.582 167.896 169.967 26.161 25.759 24.669 23.255 21.889 20.927 20.582 167.896 169.967 26.161 25.759 24.669 23.255 21.889 20.927 20.582 167.411 189.769 26.161 25.759 24.6680 23.256 21.890 20.927 20.582 197.005												
70.359												
74.836       26.137       25.735       24.657       23.236       21.876       20.919       20.578       78.018         78.774       26.140       25.738       24.659       23.237       21.876       20.919       20.577       82.095         82.910       26.143       25.741       24.661       23.239       21.877       20.918       20.576       86.376         88.148       26.146       25.744       24.664       23.241       21.878       20.918       20.575       91.799         92.755       26.149       25.747       24.667       23.243       21.879       20.918       20.575       96.569         98.591       26.152       25.749       24.667       23.245       21.880       20.919       20.575       102.610         103.724       26.154       25.751       24.671       23.247       21.881       20.920       20.576       107.924         110.26       26.155       25.753       24.674       23.250       21.884       20.921       20.577       114.656         115.945       26.157       25.756       24.674       23.250       21.884       20.922       20.578       120.577         123.190       26.158       25.756						-						
78.774       26.140       25.738       24.659       23.237       21.876       20.919       20.577       82.095         82.910       26.143       25.741       24.661       23.239       21.877       20.918       20.576       86.376         88.148       26.146       25.744       24.664       23.241       21.878       20.918       20.575       91.799         92.755       26.149       25.747       24.667       23.243       21.879       20.918       20.575       96.569         98.591       26.152       25.749       24.669       23.245       21.880       20.919       20.575       102.610         103.724       26.154       25.751       24.671       23.247       21.881       20.920       20.576       107.924         110.226       26.155       25.753       24.673       23.250       21.884       20.921       20.578       120.577         123.190       26.158       25.756       24.674       23.251       21.885       20.923       20.578       128.077         129.563       26.159       25.757       24.677       23.253       21.886       20.924       20.580       134.675         136.258       26.159       25.758 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td></td>							_					
82.910												
88.148												
92.755												
98.591												
103.724       26.154       25.751       24.671       23.247       21.881       20.920       20.576       107.924         110.226       26.155       25.753       24.673       23.248       21.883       20.921       20.577       114.656         115.945       26.157       25.754       24.674       23.250       21.884       20.922       20.578       120.577         123.190       26.158       25.756       24.676       23.251       21.885       20.923       20.579       128.077         129.563       26.159       25.756       24.677       23.252       21.886       20.924       20.580       134.675         136.258       26.159       25.757       24.677       23.253       21.887       20.924       20.580       141.606         144.739       26.160       25.758       24.678       23.254       21.888       20.925       20.581       150.386         152.200       26.160       25.759       24.679       23.255       21.888       20.926       20.581       158.110         169.967       26.161       25.759       24.679       23.255       21.889       20.926       20.582       167.896         189.769       26.161 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>												
110.226       26.155       25.753       24.673       23.248       21.883       20.921       20.577       114.656         115.945       26.157       25.754       24.674       23.250       21.884       20.922       20.578       120.577         123.190       26.158       25.756       24.676       23.251       21.885       20.923       20.579       128.077         129.563       26.159       25.756       24.677       23.252       21.886       20.924       20.580       134.675         136.258       26.159       25.757       24.677       23.253       21.887       20.924       20.580       141.606         144.739       26.160       25.758       24.678       23.254       21.888       20.925       20.581       150.386         152.200       26.160       25.758       24.679       23.254       21.888       20.925       20.581       150.386         161.652       26.161       25.759       24.679       23.255       21.889       20.926       20.582       167.896         169.967       26.161       25.759       24.679       23.255       21.889       20.927       20.582       176.505         180.502       26.161 <td< td=""><td></td><td>_</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>		_										
115.945       26.157       25.754       24.674       23.250       21.884       20.922       20.578       120.577         123.190       26.158       25.756       24.676       23.251       21.885       20.923       20.579       128.077         129.563       26.159       25.756       24.677       23.252       21.886       20.924       20.580       134.675         136.258       26.159       25.757       24.677       23.253       21.887       20.924       20.580       141.606         144.739       26.160       25.758       24.678       23.254       21.888       20.925       20.581       150.386         152.200       26.160       25.758       24.679       23.254       21.888       20.925       20.581       158.110         161.652       26.161       25.759       24.679       23.255       21.889       20.926       20.582       167.896         169.967       26.161       25.759       24.679       23.255       21.889       20.926       20.582       176.505         180.502       26.161       25.759       24.680       23.256       21.890       20.927       20.582       187.411         189.769       26.161 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>												
123.190       26.158       25.756       24.676       23.251       21.885       20.923       20.579       128.077         129.563       26.159       25.756       24.677       23.252       21.886       20.924       20.580       134.675         136.258       26.159       25.757       24.677       23.253       21.887       20.924       20.580       141.606         144.739       26.160       25.758       24.678       23.254       21.888       20.925       20.581       150.386         152.200       26.160       25.758       24.679       23.254       21.888       20.926       20.581       158.110         161.652       26.161       25.759       24.679       23.255       21.889       20.926       20.582       167.896         169.967       26.161       25.759       24.679       23.255       21.889       20.926       20.582       176.505         180.502       26.161       25.759       24.680       23.256       21.890       20.927       20.582       187.411         189.769       26.161       25.759       24.680       23.256       21.890       20.927       20.582       197.005												
129.563       26.159       25.756       24.677       23.252       21.886       20.924       20.580       134.675         136.258       26.159       25.757       24.677       23.253       21.887       20.924       20.580       141.606         144.739       26.160       25.758       24.678       23.254       21.888       20.925       20.581       150.386         152.200       26.160       25.758       24.679       23.254       21.888       20.926       20.581       158.110         161.652       26.161       25.759       24.679       23.255       21.889       20.926       20.582       167.896         169.967       26.161       25.759       24.679       23.255       21.889       20.926       20.582       176.505         180.502       26.161       25.759       24.680       23.256       21.890       20.927       20.582       187.411         189.769       26.161       25.759       24.680       23.256       21.890       20.927       20.582       197.005												
136.258       26.159       25.757       24.677       23.253       21.887       20.924       20.580       141.606         144.739       26.160       25.758       24.678       23.254       21.888       20.925       20.581       150.386         152.200       26.160       25.758       24.679       23.254       21.888       20.926       20.581       158.110         161.652       26.161       25.759       24.679       23.255       21.889       20.926       20.582       167.896         169.967       26.161       25.759       24.679       23.255       21.889       20.926       20.582       176.505         180.502       26.161       25.759       24.680       23.256       21.890       20.927       20.582       187.411         189.769       26.161       25.759       24.680       23.256       21.890       20.927       20.582       197.005												
144.739       26.160       25.758       24.678       23.254       21.888       20.925       20.581       150.386         152.200       26.160       25.758       24.679       23.254       21.888       20.926       20.581       158.110         161.652       26.161       25.759       24.679       23.255       21.889       20.926       20.582       167.896         169.967       26.161       25.759       24.679       23.255       21.889       20.926       20.582       176.505         180.502       26.161       25.759       24.680       23.256       21.890       20.927       20.582       187.411         189.769       26.161       25.759       24.680       23.256       21.890       20.927       20.582       197.005	136.258											
152.200       26.160       25.758       24.679       23.254       21.888       20.926       20.581       158.110         161.652       26.161       25.759       24.679       23.255       21.889       20.926       20.582       167.896         169.967       26.161       25.759       24.679       23.255       21.889       20.926       20.582       176.505         180.502       26.161       25.759       24.680       23.256       21.890       20.927       20.582       187.411         189.769       26.161       25.759       24.680       23.256       21.890       20.927       20.582       197.005	144.739											
161.652 26.161 25.759 24.679 23.255 21.889 20.926 20.582 167.896 169.967 26.161 25.759 24.679 23.255 21.889 20.926 20.582 176.505 180.502 26.161 25.759 24.680 23.256 21.890 20.927 20.582 187.411 189.769 26.161 25.759 24.680 23.256 21.890 20.927 20.582 197.005	152.200											
169.967 26.161 25.759 24.679 23.255 21.889 20.926 20.582 176.505 180.502 26.161 25.759 24.680 23.256 21.890 20.927 20.582 187.411 189.769 26.161 25.759 24.680 23.256 21.890 20.927 20.582 197.005	161.652											
180.502 26.161 25.759 24.680 23.256 21.890 20.927 20.582 187.411 189.769 26.161 25.759 24.680 23.256 21.890 20.927 20.582 197.005	169.967											
189.769 26.161 25.759 24.680 23.256 21.890 20.927 20.582 197.005	180.502		25.759									
AAA #AA AA AAA AA AA MAA A	189.769			24.68								
	20:1.51:1	26.162	25.760	24.68	23	.256						

H	ACH NO =	20.00	CONE AN	NGLE = 1	5.00	ANGL	E OF	ATTACK =	1.00
		D /	0 5055-	-STREAM	AT F	PLANE	ANGL	E C	
1 404						120.	150		S/RN
L/RN	0.	30.	60.	, 90	•	124.	190	. 100.	37 1014
.741	55.627	55.160	53.901	52.21	A 50.	581	49.41	1 48.989	1.309
.949	52.512	52.066	50.867			714	46.60		
1.215	48.468	48.049	46.929			982	42.95		
1.600	43.430	43.044	42.011			329	38.40		
2.053	38.947	38.580	37.604			095	34.23		
2.568	35.250	34.891	33.933			512	30.69		
3.135	32.694	32.324	31.336			874	28.05		
3.737	31.095	30.697	29.639			030	26.16		
4.358	30.277		28.68			855	24.93		
4.883		29.593				275	24.28		
5.511						949	23.86		
6.134						937	23.74		
6.746						163	23.85		
7.345						.567	24.13		
7.929						0.93	24.54		
8.497						693	25.03		
9.048	36.051					. 334	25.57		
9.585						.002	26-14	6 25.504	10.464
10.020						.578	26.63		
10.530						. 295	27.24		
11.028			36.92			.043	27.88	4 27.142	11.959
11.516					7 30	821	28.54	7 27.765	12.464
11.997						.624	29.23	6 28.415	12.962
12.472		43.086		9 36.14	1 32	.442	29.94	9 29.089	
12.943		43,971	41.02	8 37.05	2 33	. 265	30.68		
13.412	45.765	44.727	41.86	1 37.91	6 34	.079	31.42		
13.882	46.339	45.350	42.58	9 38,71	8 34	. 873	32.10		
14.276	46.712	45.766	43.10	9 39.33	0 35	.509	32 . 78		
14.752	47.037	46.146	43.62	8 39.98		. 232	33.50		
15-234	47.241	46.405	44.03	48.55		900	34.19		
15.724	47.339	46.553	44.32	2 41.02		•503	34.84		
16.225						.034	35.45	-	
16.738	47.276	46.577	44.60	2 41.68			36.00		17.870
17.265	47.142	46.478				<b>.</b> -853	36.48		4 .
17.809				-		. 134	36.88		
18.370						.330	37.21		
18.851						.430	37.42		
19.445						.480	37.60	-	
20.057				-		• 462	37.70		
20.688						.385	37.73		-
21,337				_		.257	37.70	-	
22.006				_		.089	37.61		
22.694				" "		891	37.48		
23: 404	-			-		.675	37.431		
24.136	45.040	44.363	42.60	1 46.41	∵ა აგ	. 456	37.1	15 36.632	25.529

MACH NO = 20.00 CONE ANGLE = 15.00 ANGLE OF ATTACK = 1.00

		P- /	P FREE-S1	TREAM A'	T PLANE	ANGLES		
L/RN	0 •	30.	60.	90.	120.	150.	180.	S/RN
24.765	45.007	44.317	42.517	40.274	35.278	36.940	36.466	26.180
25.546	44.990	44.288	42.446	40.135	38.082	36.727	36.256	26.989
26.359	44.993	44.281	42.403	40.029	37.909	36.522	36.046	27.830
27.205	45.010	44.291	42.386	39.954	37.766	36.334	35.846	28.706
28.089	45.038	44.313	42.387	39.908	37.653	36.171	35.667	29.522
29.014	45.073	44.345	42.403	39.886	37.571	36.037	35.514	30.579
29.984	45.115	44.383	42.430	39.884	37.518	35.933	35.391	31.584
31.004	45.163	44.428	42.464	39.897	37.490	35.860	35.299	32.639
32.078	45.214	44.476	42.505	39.922	37.483	35.814	35.236	33.751
33.018	45.258	44.520	42.543	39.948	37.490	35.795	35.206	34.724
34.207	45.310	44.57.2	42.592	39.986	37.509	35.791	35.190	35.955
35.467	45.357	44.622	42.644	40.030	37.539	35.804	35.194	37.260
36.808	45.397	44.666	42.694	40.079	37.576	35.828	35.212	38.648
38.237	45.430	44.702	42.740	40.129	37.619	35.861	35.241	40.128
39.766	45.453	44.729	42.778	40.178	37.666	35.901	35.278	41.710
41.406	45.468	44.748	42.807	40.222	37.716	35.947	35.321	43.408
43.170	45.475	44.758	42.827	40.259	37.765	35.996	35.369	45.235
45.075	45.478	44.762	42.839	40.286	37.809	36.046	35.419	47.206
46.782	45.477	44.763	42.843	40.301	37.838	36.085	35.460	48.974
48.992	45.474	44.761	42.844	40.311	37.865	36.126	35.505	51.261
51.399	45.470	44.757	42.842	40.314	37.882	36.157	35.541	53.754
54.029	45.465	44.751	42.838	40.313	37.890	36.177	35.565	56.477
56.911	45.461	44.746	42.832	40.309	37.891	36.187	35.580	59.460
60.076	45.458	44.743	42.826	40.303	37.888	36.188	35.585	62.737
63.559	45.459	44.743	42.823	40.297	37.882	36.184	35.582	66.343
67.400	45.462	44.745	42.822	40.292	37.874	36.177	35.575	70.319
71.546	45.468	44.750	42.825	40.290	37.867	36.168	35.565	74.611
75.185	45.476	44.758	42.831	40.293	37.865	36.162	35.557	78.379
79.786	45.485	44.767	42.839	40.299	37.866	36.158	35.550	83.142
84.656	45.492	44.774	42.846	40.304	37.868	36.155	35.545	88.184
89.809	45.499	44.781	42.852	40.309	37.871	36.155	35.543	93.519
95.265	45.505	44.787	42.858	40.314	37.876	36.158	35.544	99.167
101.039	45.510	44.792	42.863	40.319	37.880	36.161	35.546	105.145
107.151	45.514	44.796	42.868	40.323	37.883	36.164	35.549	111.473
113.621	45.517	44.799	42.871	40.327	37.887	36.167	35.552	118.171
120.471	45.519	44.801	42.873	40.330	37.890	36.170	35.555	125.262
126.484	45.520	44.802	42.875	40.331	37.892	36.172	35.557	131.488
134.088	45.522	44.804	42.877	40.333	37.894	36.174	35.559	139.360
142.139	45,523	44.805	42.878	40.335	37.895	36.175	35.560	147.695
150.662	45.523	44.806	42.879	40.336	37.896	36.176	35.561	
159.685	45.524	44-807	42.880	40.337	37.897	36.177	35.561	
169.239	45.525	44 • 8.08	42.881	40.338	37.898	36.177		175.751
179,354	45.526	44.808:	42.881	40.339	37.899	36.178		186.223
190.063	45.526	44.809	42.882	40.339	37.900	36.178		197.310
201.402	45.527	44.809	42.883	40.340	37.900	36.179	35.562	209.048

MACH NO = 25.00 CONE ANGLE = 15.00 ANGLE OF ATTACK = 1.00

		P /	P FREE-S	TREAM AT	PLANE	ANGLES		
L/RN	0.	30.	60.	S0.	120.	150.	180.	SZRN
	- •	• •	•					
.741	86.486	85.757	83.791	81.171	78.622	76.797	76.138	1.309
.991	80.494	79.807	77.957	75.494	73.106	71.484	70.789	1.568
1.254	74.276	73.631	71.981	69.600	67.377	65.798	65.226	1.840
1.630	66.685	66.087	54.493	62.384	60.359	58.927	58.409	2.230
2.070	59.977	59.408	57.898	55.912	54.017	52.687	52.207	2.684
2.567	54.349	53.794	52.315	50.394	48.579	47.315	46.864	3.199
3.210	49.910	49.334	47.799	45.826	43.982	42.710	42.261	3.864
3.796	47.591	46.971	45.326	43.226	41.277	39.941	39.472	4.472
4.401	46.392	45.710	43.908	41.625	39.525	38.095	37.595	5.098
5.013	46.093	45.331	43.330	40.815	38.520	36.968	36.427	5.732
5.623	46.500	45.545	43.410	40.618	38.090	36.391	35.801	6.363
5.227	47.447	46.491	43.999	40.897	38.105	36.239	35.593	6.988
6.916	48.997	47.930	45.144	41.671	38.549	36.470	35.753	7.702
7.493	50.518	49.368	45.359	42.592	39.194	36,930	36.149	8.299
8.054	52.120	50.891	47.679	43.648	39.997	37.557	36.714	8.880
8.599	53.804	52.487	49.060	44.775	40.893	38.292	37.392	9.444
9.128	55.594	54.178	50.511	45.952	41.843	39.091	38.139	9.991
9.725	57.819	56.283	52.311	47.396	43.001	40.073	39.062	10.610
10.221	59.802	58.172	53.945	_	44.041	40.952	39.888	11.123
10.704	61.795	60.089	55.639	50.084	45.134	41.869	40.749	11.623
11.176	63.736	61.978	57.355		46.282	42.832	41.650	12.111
11.638	65.568	63.787	59.053		47.480	43.841	42.595	12.590
12.092	67.249	65.469	60.692	54.454	48.717	44.896	43.585	13.061
12.616	68.977	67.231	62.482		50.190	46.176	44.793	13.603
13.061	70.238	68.543	63.881		51.460	47.306	45.866	14.064
13.505	71.287	69.658	65.134	58.857	52.715	48.451	46.963	14.523
13.949	72.124	70.574	66.225	_	53.937	49.600	48.072	14.983
14.395	72.756	71.290	67.147	61.189	55.107	50.736	49.182	15.445
14.920	73.251	71.887	68.005	62.324	56.385	52.026	50.457	15.988
15.376	73.489	72.209	68.556	2 2	57.388	53.082	51.517	16.461
15.840	73.579	72.377	68.946	63.832	58.291	54.078	52.530	16.941
16.314	73.538	72.407	69.186	64.370	59.085	55.000	53.483	17,431
16.799	73.384	72.318	69.289	64.767	59.760	55.833	54.360	17.934
17.298	73.131	72.124	69.270	65.026	60.310	56.566	55,149	18.449
17.897	72.731	71.782	69.111	65.169	60.789	57.281	55.94i	19.070
18.426	72.323	71.411	68.873		61.062	57.765	56.498	19.618
18.971	71.881	70.991	68.555		61.214	58.127	56.936	20.182
19.531	71.436	70.551	68.178	64.857	61.255	58.369	57.255	20.761
20.106	71.011	70.118	67.764		61.193	58, 797	57.357	21.357
20.796	70.571	69.654	67.274		61.008	58.514	57.556	22.071
21.405	70.251	69.307	66.874	63.798	60.766	58.427	57.533	22.702
22.029	69,991	69.018	66.513	63.405	60.464	58.258	57.421	23.348
22.669	69.791	68.786	66.201	63.023	60.120	58.018	57.231	24.011
23.327	69.647	68.613	65.943	62.670	59.754	57.721	56.975	24.692
24.005	69.555	68.493	65.740	62.359	59.387	57.386	56.668	25.394
		· · · · · ·		·	• •			•

ANGLE OF ATTACK = MACH NO = 25.00CONE ANGLE = 15.00 1.00 P FREE-STREAM A.T PLANE ANGLES L/RN 0. 30. 90. 60. 120. 150. 180. S/RN 24.824 69.502 68.413 65.571 62.056 58.981 56.969 56.267 26.242 25.553 69.495 68.387 65.480 61.851 58.669 56.613 55.909 26.996 26.309 69.514 68.392 65.431 61.697 58.399 56.276 55.558 27.779 27.095 69.552 65.418 68.420 61.592 58.176 55.972 55.230 28.592 27.913 69.605 68.464 65.431 61.530 58.002 55.710 54.938 29.439 68.522 28.765 69.669 65.465 61.505 57.877 55.494 54.689 30.322 65.524 29.809 69.756 68.602 61.513 57.787 55.304 54.460 31.402 30.748 69.838 68.680 65.587 61.543 57.752 55.193 54.317 32.375 31.734 69.924 68.764 65.659 61.589 57.750 55.127 54.221 33.395 32.769 70.011 68.850 65.738 61.648 57.771 55.099 54.169 34.467 33.860 70.093 68.935 65.822 61.717 57.811 55.102 54.153 35.596 35.208 70.179 69.027 65.921 61.806 57.876 55.135 54.171 36.991 70.241 36.436 69.094 66.001 61.889 57.943 55,183 54.210 38.263 37.738 70.289 69.149 66.073 61.972 58.018 55 . 244 54.255 39.611 39.123 70.324 69.191 66.132 62.052 58.100 55.316 54.332 41.045 69.219 70.346 66.179 40.600 62.123 5.8.183 55.395 54.408 42.573 69.234 66.211 42.179 70.357 62.182 58.263 55.479 54.490 44.208 44.167 70.359 69.240 66.23i 62.233 58.346 55.576 54.590 46.267 46.014 70.354 69.237 66.237 62.260 58.404 55.653 54.671 48.179 48.010 70.345 69.230 66.235 58.446 62.274 55.718 54.744 50.245 70.333 69.219 66.227 50.173 62.277 58.473 55.769 54.803 52.485 52.526 70.322 69.206 66.215 62.272 58.485 55.803 54.846 54.921 55.543 70.311 69.194 66.200 62.259 58.484 55.821 54.874 58.044 58.394 69.188 70.307 66.188 62.244 58.474 55.823 54.881 60.995 55.813 61.520 70.307 69.185 66.181 62.230 58.459 54.875 64.232 64.957 70.311 69.188 66.178 62.218 58.441 55.797 54.860 67.790 68.742 70.318 69.194 66.179 62.211 58.424 55.775 54:.836 71.709 72.879 70.327 69.202 66.185 62.210 58.411 55.753 54.813 75.991 70.345 69.220 78.019 66.200 62.219 58.408 55.737 54.789 81.313 82,698 70.360 69.235 66.215 62.231 55.731 58.413 54.777 86.157 87.646 69.246 66.226 54.771 78.371 62.241 58,420 55.730 91.279 66. 236 92.877 70.382 69.257 62.250 58.426 55.732 54.770 96.695 98.409 70.390 69.266 66.246 62.260 58.434 55.737 54.773 102.422 105.265 70.398 69,274 66.254 62.269 58.444 55.745 54.779 109.520 111.508 70.403 69.279 66.260 62.275 58.450 55.751 54.785 115.983 118.110 76.407 69.283 66.265 62.280 55.757 54.791 122.816 58.456 125.093 70.409 69.286 66.268 62.284 58.460 55.762 54.796 130.047 132,477 70.412 69.288 66.270 62.286 58.463 55.765 54.799 137.692 66.273 140.287 70.414 69.290 62.289 55.767 58.465 54.802 145.777 149.969 70.416 66.275 69.292 62.292 58.468 55.769 54.803 155.801 62.293 158.787 70.417 69.293 66.276 58.470 55.770 54.804 164.930 168.114 70.418 69.295 66.277 62.294 58.471 55.771 54.805 174.586 177.979 70.419 69.296 66.279 62.296 58.472 55.772 54.805 184.799 188.412 70.420 69.297 66.280 62.297 58.473 55.773 54.805 195.600

62.298

58-475

55.774

54.805 208.992

201.348

70.421

69.298

66.281

MACH NO = 30.00 CONE ANGLE = 15.00 ANGLE OF ATTACK = 1.00

		-P /	P FREE-S	STREAM A	T PLANE	ANGLES		•
L/RN	0 •	30.	60.	90.	120.	150.	180.	SZRN
.741	124.200	123,152	120.328	116.563	112.891	110.267	109.320	1.309
• 991	115.534	114.545	111.888	108.349	104.916	102.471	101.587	1.567
			103.144				93.558	1.839
1.628	95.597		92.452	89.425	86.517		83.719	2.227
2.145	84.321	83.521	81.381	78.567		74.008		2.762
2.650	76.707	75.910	73.788	71.035	68.439	66.633		3.286
3.203	71.334	70.511	68.315	65.492	62.856	61.037		3.857
3.886	67.541	66.642	64.257	61.219	58.406	56.479		4.565
4.490	65.996	65.004	62.386	59.075	56.034			5.190
5.099	65.695	64.585	61.674	58.021	54.694	-		5.820
5.805	66.564	65.294	61.979	57.847	54.118	51.618	50.751	6.551
6.400	68.079	66.664	62.976	58.391	54.272	51.526		7.168
6.984	70.029	68.482	64.440	59.402	54.877	51.866		7.772
7.646	72.563	70.880	66.478	60.963	55.985	52.667	51.523	8.457
8.196	74.854	73.054	68.359	62.476	57.150	53.588	52.358	9.027
8.729	77.280	75.347	70.329	64.075	58.424	54.639	53.330	9.579
94331	80.327	78.219	72.772	66.034	59.993	55.961	54.567	10.202
9.830	83.106	80-848	75.013	67.813	61.402	57.149	55.682	10.718
10.314	85.973	83.580	77.375	59.697	62.883	58.388	56.844	11.219
10.862	89.312	86.799	80.231	7-2.019	64.713	59.911	58.268	11.787
11.320	92.068	89.493	82.699	74.090	66.370	61.292	59.557	12.261
11.769	94.649	92.050	85.125	76.201	68.098	62.745		12.726
12.284	97.365	94.787			70.182	64.523		13.259
12.720	99.400	96.874	89.981	8:0728	72.000	66.106		13.711
	101.142	98,696		82.712	73.820			14.159
		100.457		84.882	75.912	69.649	_	14.680
	103.886			86.588	77.647	-	69.051	15.126
-	104.695			88.129	79.302	72.918	70.641	15.575
	105.310			89,696	81.102	74.754	72.462	16.104
		103.769		90.830	82.511	76.254	73.972	16.554
		103-953	99.076	91:-762	83.777	77.666	75.413	17.032
	105.513		99.403	92.596	85.056	79.176	76.982	17.589
		103.73v	99.481	93.096	85.969	80.332	78.208	18.080
	104.787		99.390	93.407		81.343	79.304	18.584
	104.142		99.091	93.548	87.334	82.321	80.397	19.189
	103.508		98.691	93,492	87.682	82.977	81.161	19.723
	102.842		98.182	93.290	87.861	83.461	81.757	20.270
	102.078	-	97.494	925.891	87.873	83.816	82.242	20.927
	101.473		96.865	92.432	87.728	83.948	82.483	21.506
	101.473	99-627	96.243	91.897	87.457	83.934	82.571	22.099
	100.418	99.027	95.566	91.219		83.749	82.496	22.810
	100.416	98-659		90.633	86.525	83.462	82.295	23.435
22.732	99.798	98.345		90.033	85.995	83.075	81.982	24.076
	99.790					62.529	81.501	24.845
23.475				8.9.485	85.350			
24.132	99.484	97-939	93.939	89.049	84.807	82.007	81.015	25.525

CONE ANGLE = 15.00

MACH NO = 30.00

ANGLE OF ATTACK = P / P FREE-STREAM AT PLANE **ANGLES** L/RN 30. 60. 90. 120. 150. 180. S/RN 24.811 99.439 97.861 93.750 88.685 84.300 81.467 80.488 26.227 25.512 99.439 97.836 93.630 88.395 83.843 80.936 79.949 26.953 26.362 99.485 97.859 93.565 88.150 83.391 80.358 79.341 27.833 17.120 99.552 97.911 93.561 88.015 83.078 79.918 78.862 28.619 27.909 99.639 97.986 93.593 87.941 82.837 79.541 78.437 29.435 28.869 99.760 98.097 93.665 87.918 82.644 79-188 78.025 30.429 29.731 99.876 98.206 87.941 93.749 82.548 78.964 77.749 31.321 30.631 100.001 98.326 93.848 87.993 82.507 78.809 77.544 32.253 31.734 100.152 98.475 93.979 88.082 82.514 78.708 77.394 33.395 32.728 100.278 98.602 94.102 88.177 82.556 78.681 77.331 34.425 33.773 100.397 98.726 94.229 88.285 82.625 78.696 77.320 35.50.6 35.061 100.519 98.856 94.374 88.424 82.729 78.756 77.357 36.839 -36-230 100-695 98.951 94.490 88.548 82.834 78.834 77.422 38.050 37.466 100.673 99.029 94.592 88.671 82-951 78.930 77.510 39.329 39.002 100.729 99.096 94.689 88.805 83.895 79.061 77.634 40.919 40.408 100.756 99.132 94.753 88.906 83.218 79.184 77.753 42.375 41.907 100.769 99.153 94.796 88.989 83.335 79.311 77.880 43.927 43.789 100.769 99.158 94.823 89.060 83.454 79.455 78.030 45.875 45.530 100.758 99,151 94.830 89.099 83.537 79.567 78.151 47.678 47.406 100.742 99.136 94.824 89.118 83.599 79.663 78.257 49.620 49.788 100.718 99.113 94.806 89.120 83.642 79.748 78.357 52.086 52.018 100.698 99.091 94.785 89.109 83.657 79.795 78.417 54.394 54.444 100.683 99.074 94.761 89.089 83.655 79.818 78.452 56.906 57-556 100-674 99.060 94.738 89.059 83.635 79.821 78.465 60.128 60.498 100.673 99.057 94.725 89.033 83.608 79.805 78.456 63.174 63.727 100.678 99.059 94.720 89.013 83.577 79.777 78.431 66.516 67-902 100-690 99.069 94.722 89.000 83.543 79.734 78.388 70.839 71.874 100.704 99.081 94.730 88.996 83.521 79.696 78.345 74.951 76.156 100.721 99.098 94.743 89.001 83.508 79.665 78.306 79.385 81.460 100.750 99.127 94.770 89.021 83.513 79.647 78.276 84.876 86.286 100.769 99.147 89.041 94.790 83.524 79.643 78.262 89.872 91.386 100.783 99.161 94.805 89.055 83.536 79.645 78.257 95.151 97-702 100-7-98 99.177 94.822 89.072 83.550 79.653 78.260 101.690 103.450 106.809 99.188 94.833 89.085 83.563 79.663 78.267 107.641 109.524 100.817 99.196 94.842 89.095 83.574 79.673 78.276 113.929 117-049 100-824 99.204 94.851 89.104 83.585 79.685 78.288 121.720 123.897 100.828 99.208 94.856 89.110 83.591 79.692 78.296 128.810 131.136 100.831 99.211 94.859 89.114 83.596 79.698 78.302 136.304 99.215 140.104 100.835 94.863 89.118 83.600 79.702 78.306 145.588 148.267 100.837 99.218 94.867 89.121 83.603 79.704 78.308 154.039 156.896 100.839 99.219 94.869 89.124 83.606 78.310 162.972 79.707 167-587 100.841 94.871 99.222 89.126 83.609 79.709 78.311 174.040 177-318 LNO.843 99.223 94.873 89.129 83.610 79.710 78.311 184.114 187.604 100.844 99.225 94.875 89.131 83.612 79.711 78.312 194.764 200.349 100.846 99.226 94.876 89.133 83.615 79.712 78.312 207.958

## NSHC/HOL/TR 75-45

MA	CH NO =	3.50	CON	E ANGLE	= 20.0	0 ANGLE	0F	ATTACK =	1.0G
						411		50	
	•		PF				ANGL		. S/RN
L/RH	0 •	30.		60•	90•	120•	150	180	• SYKIN
.658	3.106	3.085	3	.030	2.956	2,883	2.83	2.81	2 1. 222
•765	3.129	3.108		• 05 0	2.972		2.84		
.845	3.159	3.138		.080	3.002		2.87		1 1.421
1.019	3.163	3.141		.082	3.003		2.87	1 2.85	
1.161	3.152	3.130	3	-071	2.992		2.85	9 2.83	9 1.757
1.313	3.135	3.112	3	• 05 3	2.974		2.84		
1.532	3.109	3.086	3	.027	2.947		2.81		
1.708	3.092	3.070		.010	2.930		2.79		
1.892	3.081	3.058			2.917		2.78		
2.153	3.053	3.031			2.889		2.75		
2-360	3.044	3.021		• 958	2.875		2.73		
2.577	3.059	3.035		•971	2.885		2.74		
2.880	3.078	3.054		•988	2.902	2.818	2.76		
3.116	3.095	3.070		.003	2.914	2.829	2.76		
3.443	3.126	3.100		.030	2.939	2.851	2.78		
3.697	3.150	3.124		• 053	2.960	2.870	2.80		
3-958	3.176	3.150		• 077	2.982		2 . 82		
4.315	3.212	3.185		.110	3.013		2.85		
4:.591	3.239	3.211		•136	3.037		2.87		
4-874	3.265	3.237		.161	3.061	2.965	2.89		
5.263	3.300	3.271		•194 •217	3.092 3.114		2.94		
5.563	3.324	3•:295 3•:318		• 240	3.136	3.016	2.96		
5872	3,347 3,376	3.347		• 240 • 268	3.164	3.057	2.99		
6.•297 6.•628	3.395	3.366		· 287	3.183	3.082	3.01		
6.969	3.413	3.384		• 305	3.201	3.100	3.02		-
7-442	3.413	3.404		• 326	3.223	3.122	3.05		
7-812	3.446	3.418		• 340	3.237		3.06		
8-326	3.461	3.433		. 356	3.254	3.155	3.08		
8-729	3.471	3.443		. 367	3.265	3.167	3.09		
9.149		3.452		.376	3.275		3.10	-	
9.737	3.489	3-461		- 386		3.189	3.12		
10.202	3.496	3.468		• 393	3.294	3.197	3.12		4 11.378
10.688	3.501	3.473		. 399	3.300	3.204	3.13	35 3.11	1 11.896
11.374	3.507	3.479	3	406	3.307	3.212	3.14	44 3.11	9 12.625
11-918	3.510	3.483	3	-410	3.312	3.217	3.14	+9 3.12	5 13.205
12-491	3.513	3.486	3	413	3.316	3.221	3.19		
13.303	3.516	3.489	3	. 416	3.320	3.226	3.15	5-9 3.13	
13.951	3.518	3.491		•419	3.322	3.229	3.16		
14.872	3.519	3.493		-421	3.325	3.232	3.16		
15.609	3.521	3.494		• 422	3.326	3.234	3.16		
16.390	3.521	3.495		• 423	3.328	3.235	3.16		
17.504	3.522	3.496		. 424	3.329	3.237	3.17		
18.398	3-523	3.496		425	3.330	3.238	3.17		
19.337	3.523	3.497	3	425	3.339	3.238	3.17	73 3.15	0 21.099

MAC	H NO =	3.50	CON	ANGL	E =	= 2	0.00		ANG	LE	OF	AT	TACK	ζ =	1.00
,,,,,	.,														
			P F	REE-ST	RE				ANE		ANGL			80.	SZRN
L/RN	0.	30.		60•		90	•	14	20.		150	J •	1	. 50 •	27.711
20 65%	3.524	3.497	3	. 426	3	. 33	1	ž.,	239.		3.17	4		151	
20.654 21.694	3.524	3.498		. 427		. 33			240		3.17	75	3.	151	
22.781	3.525	3.498		. 427		. 33			241		3.17		3.	152	
24.306	3.525	3.499		.427		. 33			241		3.17			153	26.387
25.510	3.526	3.499		.428		. 33			241		3.17	76	3	153	
26.768	3.526	3.499		.428		. 33			242		3.1			.153	29.007
28.535	3.526	3.500		. 429		. 33			242		3.1	77		.154	
29.930	3.527	3.500		.429		. 33			242		3.1	77		. 154	
31.889	3.527	3.500		.429		. 33			243		3.1	78		.154	
33.437	3.527	3.501		.429		. 33			243		3.1	7 8	3	•155	36.104
35.054	3.527	3.501		. 430		. 33			243		3.1	78-	3	•155	37.826
37.326	3.528	3.501		.430		. 33			243		3.1	78	3	.155	40.243
39.120	3.528	3.501		.430		. 33			244		3.1	78	3	• 155	42.152
40.996	3.528	3.502		.430		. 33			244		3.1	79	3	•155	44.149
43.631	3.528	3.50-2		• 430		. 33		3.	244		3.1	79	3	. 155	46.952
45.711	3.528	3.502		. 431		. 33			244		3.1	79.	3	.156	49.167
47.887	3.529	3.50.2		431		. 33			244		3.1	79-	3	.156	51.482
50.943	3.529	3.502		431		. 33			244		3.1	79-	3	.156	
53.357	3.529	3.502		.431		3.33			244		3.1	7: Q=		.156	
56.747	3.529	3.503		. 431		33			244		3.1	79	- 3	.156	
59.425	3.529	3.503		.431		3. 33			244		3.1	79	3	.156	
62.226	3-529	3.503		5.431		3.33			245		3.1	7.9		.156	
66.159	3.529	3.503		,431		3.33			245		3.1	79	3	.156	
69.266	3.529	3.503		.431		3.33			245		3.1	79		.156	
72.515	3.529	3.50.3		3.431		3. 3.			245		3.1	79	3	.156	
77.078	3.529	3.503		3.431		3.3			24,5		3.1	7.9	.3	.156	
88.683	3.529	3.503		3.431		3.3		3.	245		3.1	79	- 3	.156	
84.453	3.529	3.503		3.431		3.3		3.	245		3.1	79	3	•156	
89.747	3.530	3.503		3.432		3.3			245		3.1	79		.156	
93.930	3.530	3.503		3.432		3.3			245		3.1	79		.156	
98.304	3.530	3.503		3.432		3.3		34	245		3.1	7.9		•156	
1-04.447	3.530	3.503		3.432		3.3			245		3.1	.79			111.672
104.447	3.530	3.503		3.432		3.3			245		3.1	79	7	1.156	1-16-837
116.118	3.530	3.503		3.432		3.3		3.	245		3.1	79	- 3	.156	124.091
121.503	3.530	3.50-3		3.432		3.3			245		3 • 1	179			129.823
127.135	3.530	3.503		3.432		3.3		3	245		3 • 1	79			135.815
135.045	3,530	3.503		3.432		3.3			.245		3.:	L7-9	;	3.156	144.233
	3.538	3.503		3.432		3.3			245		3.:	L79			150.883
141.294	3-530	3.503		3.432		3.3			-245			179	,		157.837
157.006	3530	3.503		3.432		3.3			. 245			179	,		167.604
164.257	3.530	3.503		3.432		<b>3.3</b>			. 245			17.9	;		175.320
	3.530	3.503		3.432		3.3			. 245			179	) ;		183.389
171.839	3.530	3.503		3.432		<b>3.</b> 3			. 245			17.9	) :		194.722
182-489	3.530	3.503		3.432		3.3			.245			179	) :		203.676
190.902	3 • 53 û	3.50		3.432		3.3			.245			179			6 216.252
202.721	3 - 73 0	0.000	•			•									

MA	CH NO =	5.00	CONE	ANGL	.E = 2	0.00	ANGL	E OF	ATTACK =	1.00
							PLANE	ANGL		
L/RN	<b>0</b> •	30•		60•	90	•	120-•-	150	. 180.	SZRN
450			_			_				
-658	5.510	5.470		364	5 • 22		5 • 08 - 3			
.789	5 • 475	5.435		326	5.18		5.039			
•900	5.416	5.376		268	5.12		4 • 983			_
1.062	5.308	5.267		159	5.01		4.875			
1.241		5.147					4.758			
1.436	5.069	5.029					4.641			
1.645		4.926					4.536			
		4.846		736			4 • 45 0	4.35		
2.101	4.823	4.781					4.378			
2.347	4.772	4.729		612			4.312	4.20		
2.603	4.782	4.736		614			4.300	4.19		
2.868	4.800	4.753		626			4.301	4.19		
3.140	4 • 839	4.789		655	4.48		4.314	4.19		
3.487	4.909	4.856		715	4.53		4.355	4.23		
3.769	4.976	4.921		773	4.58		4.397	4 • 26		
4.055	5.051	4.994		840	4 • 63		4.448	4.31		
4.344	5.131	5.071		911	4.70		4.505	4.36		
4.637		5.151		986	4 • 77		4.566	4.42		
4.933	5.294	5.231	5•	062	4 - 84	U	4.629	4.48		
5.233	5.374	5.309	5•	137	4 • 91	. U	4.694	4.54		
5.538	5.448	5.384	5•	209	4.97	9	4 • 75-8-			
5.847	5.517	5.452	קי	2//				4.66		
	5.579						4.882			7.078
	5.634									
	5.683						4.992			7.766
	5.727						5.041			
		5.713			5 • 31		5.095			
7.926		5.748					5 • 134			
8.291		5.778					5.169			
8.670		5.803					5 • 20 · 0 ·			
9.062		5.824			5.44		5 • 22:8			
9.470	5.900	5.841		681			5 • 25:3			
	5.911	5.853		696	5.48		5 • 27 5	5.12		
10.340	5.919	5.861		707	5.49		5 293	5.14		
10.806	5.924	5.867		715	5.51		5.307	5-16		
11.297	5.927	5 • 871		720	5.51		5 • 31 <sup>*</sup> 8 ·	5 • 17		
11.813	5.928	5.872		723	5.52		5.326	5.18		
12.359	5.928	5.373		724	5.52		5.332	5.19		
12.936	5.927	5.873		725	5.52		5 • 335	5.19		
13.708	5.926	5.871		724 727	5.52		5•337 5•37	5 • 20		
14.369	5.925	5.870		723 722	5.52		5 • 338 5 • 338	5 - 20		
15.074	5.924 5.927	5.869		722 722	5.52		5.337	5.20		
15.827	5•923 5•922	5 8 6 8		722 724	5.52		5 • 33 <del>.</del> 7	5.20		
16.633		5.868		721	5.52		5 • 33 6 5 • 33 6	5.20		
17.495	5.921	5.867	つ•	720	5.52	フ	5.335	5 - 20	1 5.153	19.139

MA	CH NO =	5.00	CONE ANG	LE = 20.	00 ANGL	E OF ATT	TACK =	1.00
L/RN	0	70	P FREE-S			ANGLES		
LZKN	0 •	30.	60.	90•	120.	150.	180.	S/RN
18.420	5.921	5.866	5.719	5.524	5.335	5.200	5.152	20.124
19.413	5.920	5.866	5.719	5.523	5.334	5.199	5.151	
20.479	5.920	5.866	5.718	5.523	5.333	5.199	5.151	22.315
21.626	5.921	5.866	5.718	5.523	5.333	5.198	5.150	23.536
22.860	5.921	5.866	5.719	5.523	5.333	5.198	5.150	24.849
24.176	5 • 922	5.867	5.719	5.523	5.337	5.198	5.150	26.249
25.916	5.923	5 • 86·8	5.721	5.524	5.334	5.198	5.150	28.101
27.391	5.925	5.870	5.722	5.525	5.334	5.199	5.150	29.670
28.941	5.926	5.871	5.723	5.526	5.335	5.200	5.151	31.320
30.573	5.927	5 • 87-2	5.724	5.527	5.336	5 • 20 0	5.152	33.057
32.290	5.928	5.873	5.725	5.528	5 • 337	5.201	5.152	34.883
34.096	5.929	5.874	5.725	5.528	5.337	5.202	5.153	36.805
35.996	5.930	5.875	5.726	5.529	5.338	5.202	5.154	38.827
37.995	5.930	5.875	5.727	5.530	5.339	5.203	5.154	40.955
40.099	5.931	5.876	5.728	5.531	5.340	5.204	5.155	43.194
42.313	5.932	5.877	5.728	5.531	5.340	5.204	5.155	45.550
44.643	5.932	5.877	5.729	5.532	5.341	5.205	5.156	48.029
47•094 49•674	5.933	5 • 878	5.729	5.532	5.341	5.205	5.156	50.638
53.090	5 • 933 5 • 934	5.878	5.730	5.533	5.342	5 • 20 6	5.157	53.384
55.985	5.934	5.879	5.730	5.533	5.342	5 • 20.6	5.157	57.019
59.031	5.934	5•879 5•879	5.730	5.533	5.342	5.206	5.157	60.099
62.237	5.934	5.879	5.731 5.731	5.533	5.342	5.206	5.158	63.341
65.611	5.934	5.879	5.731	5.534	5.343	5.207	5.158	66.753
69.163	5.935	5.880	5.731	5.534 5.534	5.343	5.207	5.158	70.343
72.901	5.935	5.880	5.731	5.534	5 • 34-3 5 • 34-3	5.207	5.158	74.123
76.835	5.935	5 • 88.0	5.731	5.534	5.343	5.207	5.158	78.101
80.976	5.935	5.880	5.731	5.534	5.343	5.207 5.207	5.158	82.288
85.335	5.935	5.880	5.731	5.534	5.343	5.207	5.158 5.158	86 • 695
89.923	5.935	5.880	5.732	5.534	5.34.3	5.207	5.158	91.333
94.752	5.935	5.880	5.732	5.534	5.343	5.207		96.216 101.355
99.835	5.935	5.880	5.732	5.534	5.343	5.207		106.763
106.565	5.935	5.880	5.732	5.534	5.343	5.207		113.926
L1:2 • 269	5.935	5 • 88.0	5.732	5.534	5.34-3	5.207	5.158	119.996
L48+273	5.935	-5 • 88°0-	5.732	5.534	5.343	5.20-7		126.385
124.592	5.935	5.880	5.732	5.534	5.343	5.207		133.109
131.243	5•935	5 • 88 O-	5.732	5.534	5.343	5.207		140.187
138.244	5 • 935	5.880	5.732	5.535	5.343	5.207		147.638
45.613	5.935	5.880	5.732	5.535	5.343	5.207		155.480
53.369	5 • 935	5 + 880	5 732	5.535	5.343	5.207		163.734
61.534	5.935	5.880	5.732	5.535	5.343	5.207		172.422
70.127	5.935	5 • 880	5.732	5.535	5.343	5.207		181.567
79.172	5.935	5.880	5.732	5.535	5.343	5.207		191.192
88 • 693	5.935	5.880	5.732	5.535	5.34:3	5 - 20-7		201 - 324
201.300	5.935	5.880	5.732	5.535	5.343	5.207		214.741

MACH NO = 10.00 CONE ANGLE = 20.00 ANGLE OF ATTACK = 1.00

		P /	P FREE-S	TOTAM A	T DIANE	ANCLES		
L/RN	0-•	30.				ANGLES		
CINI	0.4	30 •	60.	90.	120.	150.	180.	S/RN
•658	19.474	19.324	18.921	18.382	17.856	17.479	17.343	1.222
.808	18.916	18.768	18.367	17.833	17.312	16.939	16.804	1.381
.983	18.126	17.980	17.586	17.062	16.553	16.190	16.059	1.568
1.181	17.293	17.150	16.765	16.254	15.750	15.408		
1.446	16.345	16.203	15.824	15.322			15.281	1.779
1.737	15.566	15.423	15.040		14.838	14.496	14.372	2.060
1.995	15.082	14.934	14.541	14.535	14.052	13.711	13.588	2.370
2.319	14.640			14.025	13.533	13.187	13.063	2.645
2.654		14.484	14.068	13.527	13.016	12.658	12.531	2.990
2.937	14.520	14.351	13.903	13.321	12.772	12.390	12.255	3.346
	14.544	14.361	13.878	13.254	12.668	1.2.263	12.119	3.647
3.277	14.730	14.530	13.999	13.317	12.679	12.239	12.083	4.089
3.615	15.045	14.825	14-241	13.493	12.797	12.318	12.149	4.369
3.895	15.385	15.147		13.713	12.964	12.450	12.269	4.666
4.226	15.050	15.594	14.914	14.041	13.229	12.672	12.476	5.019
4.552	16.337	16.068	15.349	14.417	13.545	12.945	12.735	5.366
4.820	16.733	16.456	15.716	14.747	13.834	13.201	12.979	5.651
5-138	17.180	16.898	16.140	15.143	14.191	13.527	13.293	5.989
5.451	17.602	17.313	16.540	15.522	14.546	13.859	13.615	6.322
5.709	17.942	17.647	16.859	15.824	14.831	14.131	13.881	6.597
6.016	18.342	18.040	17.232	16.172	15.159	14.445	14.191	6.924
6.321	18.725	18.419	17.595	16.511	15.476	14.748	14.489	7.248
6.574	19.024	18.717	17.889	16.789	15.734	14.994	14.730	7.517
6.878	19.347	19.044	18.220	17.112	16.040	15.283	15.014	7.840
7-132	19.581	19.284	18.472	17.369	16.289	15.522	15.248	8.111
7.433	19.815	19.528	18.739	17.654	16.576	15.802	15.525	8.437
7-749	19.998	19.723	18.963	17.908	16.845	16.072	15.793	8.768
8.012	20.114	19.848	19.115	18.092	17.050	16.235	16.007	9.048
8.333	20.211	19.958	19.258	18.276	17.268	16.520	16.246	9.390
8.663	20.269	20.027	19.359	18.421	17.453	16.728	16.461	9.740
8.944	20.290	20.057	19.414	18.512	17.579	16.878	16.618	10.039
9.291	20.288	20.064	19.449	18.588	17.698	17.027	16.778	10.409
9.651	20.265	20.047	19.454	18.631	17.783	17.143	16.905	10.792
9.961	20.235	20.021	19.441	18.644	17.829	17.215	16.986	11.122
10-347	20.193	19.981	19.411	18.638	17.856	17.272	17.054	11.533
10.751	20.145		19.371			17.299	17.093	11.962
11.101	20.104	19.895	19.333	18.583	17.844	17.303	17.104	12.335
11.540	20.054	19.846	19.286	18.54:0	17.814	17.288	17.096	12.802
11.999	20.006	19.797	19.238	18.495	17.774	17.259	17.072	
1-2.398	19.97-0	19.760	19.199	18.457	17.739	17.227		1.3.291
12.896	19.933	19.721	19.155	18.411	17.694	17.185	17.042	13.715
13.418	19.906	19.690	19.117	18.367	17.649	17.141	17.002	14.245
13.873	19.889	19.672	19.093	18.335			16.959	14.801
14.444	19.876	19.657	19.071			17.105	16.922	15.284
15.048	19.870	19.649	19.071	18.303 18.279			16.880	15.893
15.577	19.869	19.646	19.050			1-7-023	16.839	16.535
- / <del>-</del> / /	- 7. 003	T 2 0 0 4 0	T 2 • 0 2 0	18.265	17.517	16.995	16.809	17.099

PACH NO = 10.00 CONE ANGLE = 20.00 ANGLE OF ATTACK = 1.00

		P / F	FREE-ST	TREAM AT	PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150.	180.	SZRN
								_
15.249	19.872	19.648	19.047	18.254	17.497	16.967	16.779	17.813
16.841	19.877	19.652	19.048	18.250	17.486	16.951	16.760	18.444
17.596	19.884	19.659	19.052	18.249	17.479	16.937	16.745	19.247
18.404	19.893	19.667	19.059	18.253	17.477	16.930	16.735	20.107
19.123	19.901	19.675	19.066	18.258	17.478	16.928	16.732	20.872
20.048	19.911	19.685	19.075	18.265	17.483	16.930	16.733	21.856
21.047	19.921	19.695	19.085	18.274	17.490	16.935	16.736	22.920
21.945	19.928	19.702	19.093	18.282	17.497	16.940	16.742	23.875
23.110	19.935	19.710	19.101	18.291	17.506	16.948	16.749	25.115
24.382	19.940	19.715	19.108	18.299	17.514	16.957	16.757	26.468
25.534	19.944	19.719	19.112	18.305	17.521	16.963	16.764	27.695
27.042	19.947	19.722	19.116	18.310	17.528	16.971	16.772	29.299
28.701	19.950	19.726	19.120	18.313	17.532	16.977	16.778	31.065
30.214	19.953	19.728	19.122	18.316	17.535	16.981	16.782	32.675
32.205	19.957	19.732	19.125	18.319	17.538	16.983	16.785	34.793
34.405	19.960	19.735	19.129	18.322	17.541	16.986	16.787	37.134
36.368	19.964	19.739	19.132	18.325	17.544	16.988	16.789	39.223
38.861	i9,969	19.744	19.137	18.330	17.548	16.992	16.792	41.877
41.515	19.974	19.748	19.141	18.334	17.552	16.995	16.795	44.781
43.857	19.977	19.752	19.144	18.337	17.555	16.998	16.798	47.193
46.833	19.980	19.755	19.148	18.340	17.558	17.001	16.801	50.360
50.000	19.983	19.758	19.151	18.343	17.561	17.004	16.803	53.731
52.796	19.985	19.760	19.152	18.345	17.563	17.006	16.805	56.705
56.348	19.986	19.761	19.154	18.347	17.564	17.008	16.807	60.486
59.484	19.988	19.763	19.156	18.348	17.566	17.009	16.809	63.823
63.470	19.989	19.764	19.157	18.349	17.567	17.010	16.810	68.964
67.713	19.989	19.764	19.157	18.350	17.568	17.011	16.811	72.580
71.459	19.990	19.765	19.158	18.351	17.568	17.011	16.811	76.566
76.220	19.990	19.765	19.159	18.351	17.569	17.012	16.811	81.633
81.290	19.991	19.766	19.159	18.352	17.569	17.012	16.812	87.029
85.766	19.991	19.766	19.159	18.352	17.569	17.012	16.812	91.791
91.455	19.991	19.766	19.160	18.352	17.570	17.012	16.812	97.846
97.513	19.992	19.767	19.160	18.352	17.570	17.013	16.812	104.292
102.860	19.992	19.767	19.160	18.353	17.570	17.013	16.812	109.983
109.658	19.992	19.767	19.169	18.353	17.570	17.013		117.218
116.897	19.992	1:9.767	19.160	18.353	1757-0	17.013		124.921
123.288	19.992	19.767	19.161	18.353	17.570	17.013		131.721
131.411	19.992	19.767	19.161	18.353	17.570	17.013		140.366
140.061	19.992	19.768	19.161	18.353	17.571	17.013		149.57-2 157.698
147.697	19.992	19.768	19.161	18.353	17.571	17.013		168.328
157.404	19.993	19.768	19.161	18.353	17.57-1	17.013		179.328
167.741	19.993	19.768	19.161	18.354	17 -571	17.013	1=0+01/6 4=6 A42	188.738
176.866	19.993	19.768		18.354	17.571	17.013		201.083
188.466	19.993	19.768		18.354	17.571	17.013		214.228
200•818	19.993	19.768	19.161	18.354	17.571	17.013	10.015	CT4+CC0

MACH NO = 15.00 CONE ANGLE = 20.00 ANGLE OF ATTACK = 1.00

		'n /	P FREE-	STREAM	AT PLANE	ANGLES		
L/RN	0.	30.	60.	90.		150.	180.	S/RN
LIKN	• •	30 •	60.	30 •	150.	1900	100.	37 K·1
-658	42.710	42.377	41.480	40.282	39.113	38.275	37.973	1.222
							36.324	
-837	40.967	40.640	39.758	38.581		36.620		1.412
1.013	39.059	38.738	37.874			34.813	34.526	1.599
1.252	36.712	36.399	35.561			32.612	32.337	1.854
1.566	34.265	33.954	33.125			30.237	29.969	2.188
1.859	32.635	32.318	31.475			28.564	28.297	2.500
2.169	31.370	31.043	30.168			27.184	26.913	2.829
2.543	30.717	30.356	29.398			26.178	25.889	3.228
2.869	30.610	30.214	29.167			25.690	25.382	3.575
3.194	30.903	30.466	29.312			25.512	25.178	3.921
3.569	31.634	31.141	29.841			25.603	25.235	4.320
3.885	32.515	31.973	30.545	28.724	27.044	25.897	25.494	4.656
4.194	33.533	32.950	31.405	29.429	27.594	26.344	25.906	4.985
4.547	34.751	34.136	32.496	30.368	28.378	27.012	26.533	5.360
4.841	35.745	35.113	33.422	31.209	29.115	27.665	27.154	5.674
5.130	36.691	36.042	34.305			28.350	27.814	5.981
5.459	37.780	37.102				29.146	28.589	6.331
5.735	38.722	38.017				29.808	29.237	6.625
6.007	39.661	38.936				30.453	29.868	6.914
6.319	40.713	39.976				31.200	30.594	7.246
6.584	41.539	40.806	_	-		31.846	31.220	7.528
6.847	42.270	41.552	39.585			32.502	31.856	7.807
7.153	42.985	42.293	4-0.384			33.274	32.609	8.133
7.416	43.476	42.812	40.971			33.928	33.253	8.414
7.681	43.858	43.225	41.461			34.562	33.883	8.696
	44.173					35.254		
7.994		43.576	41.911				34.582	9.029
8.267	44.340	43.774	42.194			35.792	35.134	9.319
8.544	44.422	43.886				36.270	35.632	9.614
8.875	44.431	43.923	42.515			36.743	36.133	9.966
9.167	44.382	43.892				37.072	36.489	10.277
9.467	44.296	43.820	-			37.328	36.775	10.596
9.829	44.164	43.699				37.537	37.020	10.982
10.151	44.030	43.573				37.642	37.154	11.324
LO.484	43.882	43.431	42.214	40.567	38.917	37.683	37.222	11.679
10.888	43.698	43.251	42.051	40.438	38.839	37.664	37.229	12.108
l1.247	43.542	43.094	41.900	40.308	38.742	37.602	37.184	12.490
11.618	43.399	42-946	41.745	40.165	38.624	37.510	37.104	12.885
12.067	43.259	42.796	41.575	39.990	38.468	37.377	36.982	13.363
12.467	43.167	42.694		39.843		37.247	36.858	13.789
12.881	43.099	42.618		39.709		37.106	36.721	14.229
13.385	43.050	42.559		39.578		36.937	36.554	14.765
13.835	43.029	42.531	41.207			36.797	36.411	15.245
14.305	43.025	42.520		39.430		36.672	36.278	15.745
L4.881	43.035	42.526	41.165	39.385		36.553	36.147	16.357
15.399	43.052	42.541	41.170	39.367		36.476	36-060	16.908
170000	73.U2C	ユビモンコエ	4.T4-T1.0	334301	31 6023	301710	2.0 4:8 0 8.	TO \$.30 0

MACH NO = 15.00 CONE ANGLE = 20.00 ANGLE OF ATTACK = 1.00 P / P FREE-STREAM AT PLANE ANGLES L/RN 0. 30. 60. 90. 120. 150. 180. S/RN 15.942 43.073 42.561 41.184 39.365 37.630 36.423 35.997 17.487 16.513 43.096 42.583 41.203 39.374 37.619 36.392 35.957 18.995 17.218 43.125 42.611 41.228 39.393 37.624 36.378 35.935 18.845 17.859 43.152 42.636 41.251 39.413 37.638 36.381 35.934 19.527 18.538 43.180 42.664 41.276 39.435 37.656 36.395 35.944 20.249 19.383 43.214 42.698 41.308 39.462 37.681 36.417 35.965 21.149 20.159 43.241 42.726 41.336 39.488 37.703 36.439 35.987 21.974 20.988 43.262 42.749 41.363 39.515 37.727 36.461 36.009 22.857 22.033 43.278 42.768 41.388 39.546 37.757 36.489 36.037 23.968 23.003 43.286 42.777 41.403 39.568 37.783 36.514 36.061 25.001 24.052 43.288 42.780 41.411 39.583 37.806 36.540 36.087 26.117 25.390 43.287 42.780 41.413 39.593 37.825 36.565 36.113 27.541 26.647 43.285 42.777 41-411 39.594 37.833 36.579 36.130 28.879 28.022 43.284 42.776 41.408 39.591 37.834 36.585 36.138 30,342 29.794 43.286 42.777 41.407 39,587 37.830 36.584 36.138 32.227 31.475 43.289 42.780 41.408 39.585 37.825 36.578 36.132 34.817 33.327 43.295 42.785 41.411 39.586 37.821 36.570 36.124 35.988 35.731 43.305 42-794 41.417 39.588 37.819 36.564 35.115 38.545 38.018 43.315 42.803 41.426 39.593 37.820 36.561 36.110 40.979 40.465 43.327 42.816 41.438 39.603 37.826 36.562 36.109 43.583 43.507 43.343 42.832 41.454 39.619 37.839 36.571 36.115 46.820 46.285 43.353 42.842 41.465 39.630 37.850 36.581 36.124 49.77-7 49.232 42.850 43.360 41.473 39.639 37.860 36.591 36.134 52.914 52.897 43.368 42.858 41.481 39.648 37.870 36.602 36.145 56.813 56.245 43.373 42.863 41-487 39.654 37.877 36.610 36.153 60.376 59.797 43.376 42.866 41.491 39.659 37.882 36.160 36.616 64.156 64.214 43.379 42.869 41.494 39.663 37.886 36.621 36.165 68.857 68.251 43.380 42.871 41.495 39.664 37.859 36.623 36.168 73.153 7:2.533 43.382 42.872 41.497 39.665 37.890 36.625 36.169 77.710 77.861 43.383 42-874 41.498 39.667 37.891 36.626 36.170 83.379 82.730 43.384 42.874 41.499 39.668 37.892 36.626 36.170 88.561 87.895 43.385 42.875 41.500 39.669 37.893 36.626 36.170 94.058 94.322 43.386 42-876 41.501 39.670 37.893 36.627 36.170 100.897 100.195 43.386 42.877 41.501 39.670 37.894 36.627 36.170 107.146 106.426 43.387 42.877 41.502 39.671 37.894 36.627 36.170 113.778 114.178 43.387 42-878 41.503 39.672 37.895 36.628 36.171 122.928 121.263 43.388 42.878 41.503 39.672 37.895 36.628 36.171 129.567 128.781 43.388 42-878 41.503 39.672 37.896 36.628 36.171 137.567 138.133 43.388 42.879 41.504 39.673 37.896 36.629 35.171 147.519 146.680 43.388 42-879 41.504 39.673 37.896 36.629 36.172 156.615 155.749 43.388 42.879 41.504 39.673 37.897 36.172 166.266 36.629 167.031 43.389 42-879 41.504 39.673 37.897 36.172 178.272 36.629 17-7.342 43.389 42.879 41.504 39.674 37.897 36.630 36.172 189.245 188.282 43.389 42.879 41.504 39.674 37.897 36.630 36.172 200.887 201.893 43.389 42.879 41.505 39.674 37.897 36.630 36.172 215.371

CONE ANGLE = 20.00 ANGLE OF ATTACK = 1.00 MACH NO = 20.00 P FREE-STREAM AT PLANE **ANGLES** S/RN LIRN 60. 90. 120. 150. 180. 0. 30. 78.948 68.878 66.860 1.222 73.070 67.396 .658 75.247 74.658 1.411 67.832 65.810 64.366 63.844 72.049 71.471 69.912 .836 59.943 63.793 61.838 60.447 1.636 1.047 67.891 67.326 65.811 1.893 57.824 56.490 56.008 59.706 1.289 63.677 63.128 61.657 2.229 1.605 59.385 58.838 57.378 55.452 53.606 52.304 51.835 52.150 48.969 48.498 2.595 55.608 54.112 50.281 1.948 56.171 51.971 49.930 48.002 46.657 46.177 2.924 2.258 54.128 53.539 3.320 53.208 52.559 50.837 48.613 46.524 45.076 44.563 2.630 45.815 44.232 43.673 3.718 53.239 52.510 50.584 48.114 3.003 45.792 43.460 4.856 48.308 44.067 3.321 53.965 53.156 51.026 4.444 46.272 44.354 3.686 55.454 54.542 52.140 49.086 43.681 4.769 47.051 44.951 44.216 3.992 57.114 56.117 53.488 50.137 5.139 51.666 48.272 45.957 45.146 4.339 59.231 58.163 55.324 5.499 4.677 60.186 57.217 53.346 49.703 47.195 46.313 61.296 54.780 50.988 48.352 47.420 5.798 4.959 62.969 61.827 58.774 48.747 6.139 5.279 64.884 60.515 56.386 52.464 49.721 63.690 6.471 57.943 53.885 50.049 62.249 51.054 5.591 66.837 65.581 6.749 63.769 59.284 55.081 52.165 51.133 5.852 68.539 67.236 60.887 56.489 53.453 52.382 7.668 69.152 65.568 6.151 70.489 54.575 53.465 7.336 62.284 57.727 6.404 72.059 70.718 67.089 55.920 7.646 6.695 73.704 72.383 68.772 63.902 59.201 54.763 7.954 6.984 75.100 73.821 70.296 65.452 60.679 57.299 56.098 7.231 61.915 58.486 57.258 8.217 66.685 76.085 74.854 71.440 63.280 59.844 8.525 58.601 7.520 76.988 75.821 72.566 67.974 8.835 7.812 77.637 76.539 73.463 69.077 64.524 61.134 59.896 74.051 69.864 65.470 62.159 60.938 9.104 8.065 76.966 78.005 63.232 9.422 70.595 66.418 62.047 8.364 78.239 77.266 74.535 9.700 8.625 78.298 77.374 74.790 71.064 67.089 64.032 62.889 8.937 78.238 77.359 74.922 71.434 67.705 64.815 63.728 10.032 74.908 71.627 68.142 65.431 64.406 18.374 9.258 77.231 78.078 65.822 64.854 10.676 9.542 77.881 77.057 74.806 71.671 68.378 68.507 66.124 65.221 77.597 76.794 74.611 71.606 11.039 9.883 66.267 65.427 11.415 71.447 68.499 77.264 76.479 74.352 10.237 11.749 68.407 66.280 65.486 10.551 76.952 76.177 74.088 71.254 70.976 68.222 66.192 65.440 12.152 10.929 76.584 75.810 73.744 11.321 76.241 75.456 73.382 70.653 €7.975 66.018 65.299 12.569 12.938 75.988 70.354 67.722 65.817 65.120 11.668 75.187 73.081 72.768 70.092 67.393 65.534 64.858 13.383 12.086 75.751 74.928 64.597 13.777 74.758 72.544 69.720 67.096 65.259 12.457 75.600 64.917 64.263 14.255 69.435 66.756 74.618 72.343 12.905 75.481 13.372 64.576 63.918 14.752 74.537 72.204 59.209 66.449 75.419 69.065 66.228 64.306 63.635 15.196 13.789 75.403 74.507 72.131 15.736 68.952 66.026 64.037 63.343 14.297 75.418 74.511 72.093 16.302 63.825 63.108 14.829 75.457 74.543 72.097 58.894 65.886 75.501 74.584 72.123 68.881 65.812 63.698 62.956 16.809 15.306

	MACH NO =	20.00	CONE AN	GLE = 20	• 0 0 ANG	LE OF A	TTACK =	1.00
		P /	9 EPEC -	STREAM	AT DIANE	41101-0		
L/R	N 0.	30.			AT PLANE	ANGLE		
		30 •	60.	90.	120.	150.	180.	S/RN
15.88	9 75.556	74.637	72.169	68.899	65.774	67 6.00	60 076	
16.41		74.686	72.215	68.932		63.602		
17.05	9 75.665	74.745	72.270	68.982		63.563		
17.74		74.807	72.328	69.036		63.560		
18.35		74.862	72.379	69.084	65.896	63.589		
19.12		74.924	72.442	69.142	65.952	63.630 63.685		
19.94		74.981	72.503	69.201	66.008	63.743		
20.69		75.018	72.548	69.253	66.058	63.792		
21.62		75.049	72.591	69.308	66.117	63.851		-
22.48		75.064	72.615	69.345	66.165	63.901		
23.57		75.067	72.629	69.376	66.210	63.955		24.454
24.76		75.059	72.629	69.388	66.241	63.998		25.613
25.88		75.049	72.618	69.388	66.253	64.021		26.880 28.064
27.30		75.036	72.603	69.375	66.252	64.032		
23.88		75.027	72.590	69.356	66.236	64.024		29.579
30.37		75.024	72.582	69.341	66.216	64.005		31.257
32.29		75.029	72.579	69.328	66.192	63.976		32.843
34.45		75.044	72.587	69.324	66.174	63.946		34.893
36.50		75.061	72.601	69.328		63.925	63.125	37.185° 39.369
39.16	4 75999	75.085	72.623	69.344	66.165	63.909		
41.62		75.110	72.647	69.365		63.910		42.199
44.66		75.142	72.680	69.399	66.208	63.929		44.812
47.92		75.163	72.704	69.426	66.238	63.956		48.056
50.89	76.087	75.176	72.718	69.443		63.979	63.156	51.524 54.687
54.59	76.100	75.190	72.733	69.460		64.002	63.180	58.615
58.53	7 76.108	75.198	72.744	69.473		64.021		62.815
62.13	76.113	75.204	72.749	69.480		64.034	63.214	66.647
66.61	76.117	75.208	72.754	69.485		64.043	63.225	71.407
70.69		75.210	72.756	69.487		64.047	63.230	75.749
75.75		75.213	72.759	69.490		64.049		81.143
81.18:		75.215	72.762	69.492		64.050		86.913
86.129		75.217	72.763	69.494		64.051	63.233	92.178
92.27		75.218	72.765	69.496		64.052	63.233	98.718
98.849		75-220	72.767	59.497		64.052		105.714
104.848		75.221	72.768	6.9.499		64.053		112.999
112.301		75.222	72.769	69.500		64.054		120.329
119.101	-	75.223	72.770	69.501		64.056		127.266
127.549		75.224	72.771	69.502		54.057		136.256
136.586		75.224	72.771	69.503		64.057		145.873
144.833		75.225	72.772	69.504		64.058		154.650
155.077		75.225	72.772	69.504		64.059		165.551
166.037		75.225	72.773	69.505		64.059		177.214
176.038		75.226	72.773	69.505		64.060		187.857
188.461		75.226	72.773	69.505		64.060	63.239	
201.751	76-135	75.226	72.773	<b>-69∙206</b>		64.060		215.221

MACH NO = 25.00 CONE ANGLE = 20.00 ANGLE OF ATTACK = 1.00

		р/	P FREE-S	TREAM	AT PLANE	ANGLES	3	
L/RN	0.	30.	60.	90.	120.	150 •	180.	SZRN
C7 1(11	•	00.		300	1174	1304	2000	<b>G</b> ,
-658	117.071	116.153	113.678	110.367	107.140	104.830	103.994	1,222
					102.437		99.371	1.405
		104.946		99.432		94.211	93.425	1.621
1.305	98.372	97.518	95.232	92.203	89.283	87.213	86.465	1.910
1.610	91.908	91.057	88.787	85.795	82.927	80.904	80.175	2.235
1.941	87.021	86.148	83.826	80.781	77.860	75.845	75.114	2,587
2.238	83.776	82.868	80.448	77.298	74.322	72.248	71.508	2.903
2.596	82,266	81.265	78.613	75.187		69.740	68.949	3.284
2.957	82,116	80.997	78.042	74.254	70.728	68.302	67.446	3.668
3.316	83.306	82.046	78.730	74.505	70.596	67.919	66.978	4.050
3.669	85.544	84.124	80.390	75.646	71.280	68.306	67.264	4.426
4.014	88.494	86.924	82.783	77.508	72.653	69.355	68.201	4.793
4.302	91.251	89.589	85.175	79.497		70.650	69.397	5.100
4.630	94.392	92.663	88.044	82.029	76.378	7-2-493	71.129	5.448
4.947		95.566	90.794	84.557	78.638	74.522	73.069	5.786
	97.355	98.402			80.860		75.066	6.115
	100.275		93.431	86.978		76.583		6.436
	103.277		96.076	89.337		78.590	77.023	
	106.349		98.805	91.728		80.542	78.925	6.748
		106.839		93.838		82.212	80.542	7.011
		109.690		96.354		84.204	82.460	7.312
		112.286		98.865		86.269	84.447	7.609
			108.958			88.394	86.502	7.904
			111.041			90.540	88.596	8.198
			112.788			92.649		8.493
			114.009			94.382		8.747
					101.523			9.047
					103.025			9.351
					104.262	99,432		9.661
					105.228		98.941	9.978
					105.923			10.305
					106.309			10.592
					106.534			10.939
					106.548			11.297
					106.392		101.831	11.667
					106.105		101.772	12.049
					105.714			12.445
					105.309			12.793
					104.777			13.213
					104.209			13.647
					103.648		99.837	14.097
					103.138			
					102.710	99.749		15.055
					102.419	99.362	98.300	15.491
					102.171	98.997		16.021
15.086	117.185	115.747	111.888	106.810	102.017	98.732	97.583	16.576

MACH NO = 25.00

CONE ANGLE = 20.00 ANGLE OF ATTACK = 1.00 P / P FREE-STREAM AT PLANE **ANGLES** L/RN 0 . 30. 60. 90. 120. 150. 180. S/RN 15.634 117.281 115.840 111.967 106.839 101.948 98.563 97.374 17.159 16.209 117.379 115.937 112.058 106.906 101.950 98.483 97.258 17.771 16.815 117.480 116.037 112.155 106.993 102.001 98.478 97.226 18.415 17.360 117.571 116.126 112.239 107.074 102.070 98.519 97.250 18.996 18.031 117.675 116.230 112.341 107.171 102.163 98.599 97.321 19.709 18.742 117.775 116.333 112.444 107.270 102.261 98,696 97.417 20.466 19.498 117.859 116.421 112.541 107.371 102.360 97.522 98,799 21.271 20.306 117.924 116.493 112.629 107.467 102.460 98.902 97.629 22.130 21.171 117.971 116.545 112.694 107.556 102.558 99.004 97.734 23.051 21.966 117.991 116.570 112.736 107.616 102.636 99.090 97.822 23.897 22.964 117.996 116.582 112.764 107.666 102.711 99.179 97.917 24.959 24.050 117.983 116.572 112.766 107.695 102.763 99.251 97.996 26.114 25.236 117.956 116.547 112.752 107.697 102.792 99.298 98.050 27.377 26.540 117.930 116.520 112.721 107.678 102.793 99.319 98.077 28.765 27.980 117.906 116.493 112.689 107.643 102.770 99.312 98.076 30.297 29.337 117.894 146.477 112.664 107.609 102.735 99.284 98.052 31.741 31.085 117.896 116.474 112.646 107.572 102.686 99.233 98.002 33.602 33.036 117.915 116.488 112.645 107.547 102.637 99.172 97.938 35.678 35.219 117.947 116.517 112.664 107.542 102.598 99.109 97.867 38.001 37.667 117.986 116.555 112.696 107.558 102.562 99.059 97.802 40.606 49.394 118.027 116.596 112.736 107.589 102.591 99.034 97.760 43.508 42.892 118.070 11 .639 112.780 107.630 102.620 99.041 97.753 46.166 45.990 118.116 110.688 112.833 107.687 102.672 99.877 97.778 49.463 49.300 118.144 116.718 112.868 107.731 102.723 99.127 97.823 52.986 52.837 118.165 116.740 112.893 107.761 102.763 99.175 97.873 56.749 56.616 118.183 116.758 112.913 107.786 102.793 97.916 99.214 60.771 60.654 118.193 116.770 112.927 107.804 102.818 99.244 97.951 65.068 64.336 118.200 116.777 112.934 107.813 102.832 99,264 97.973 68.986 68.905 118.205 116.782 112.940 107.819 102.840 99.278 97.989 73.848 73.789 118.209 116.786 112.944 107.823 102.844 99.283 97.997 79.046 79.009 118.214 116.791 112.948 107.827 102.846 99.285 97.998 84.601 84.589 118.217 116.794 112.953 107.831 102.850 99.286 97.998 90.539 90.554 118.219 116.797 112.955 107.834 102.854 99.289 97.998 96.887 95.993 118.222 116.799 112.958 107.836 102.855 99.290 97.999 102.675 102.745 118.224 116.802 112.961 107.839 102.858 99.291 98.000 109.860 109.962 118.226 116.804 112.963 107.842 102.861 99.293 98.001 117.540 117.677 118.228 116.805 112.965 107.845 102.864 99.296 98.003 125.750 125.924 118.229 116.806 112.966 107.846 102.866 98.006 134.527 99.299 134.739 118.230 116.807 112.967 107.848 102.867 99.300 98.008 143.908 142.778 118.231 116.808 112.968 107.849 102.868 99.301 98.009 152.463 152.757 118.231 116.809 112.969 107.850 102.870 98.009 163.082 99.303 163.424 118.232 116.809 112.969 107.850 102.871 99.304 98.010 174.434 174.827 118.232 116.810 112.970 107.851 102.871 99.305 98.811 186.568 187.016 118.232 116.810 112.970 107.852 102.872 99.305 98.012 199.540 200.047 118.233 116.810 112.971 107.852 102.873 99.305 98.012 213.407

MACH NO = 30.00 CONE ANGLE = 20.00 ANGLE OF ATTACK = 1.00

				STREAM .				
L/RN	0.	30.	60.	90.	120.	150.	1-80 •	SZRN
.658	168.199	166.879	163.316	158.553	153.912	150.586	149.384	1.222
					147.089			1.405
					138.339			1.620
					128.079			1.909
					118.887			2.233
					111.583			2.584
					105.753			2.953
					102.640			
					101.029			3.716
					100,970			4.096
					102.065			
					104.118			
					106.858			5.185
					109.987			5.528
					113.210			5.861
					115.903			6.139
					118.944			6.455
					121.961			6.763
					125.051			7.064
					128.255			7.351
6.701	164.830	161.813	153.551	142.364	131.547	124.001	121.342	7.653
					134.850			7.943
					138.067			8.232
					141.099			
7.792	173.689	171.214	164.256	154.277	143.864	136.084	133.236	8.814
8.070	174.566	172.248	165.720	156.281	146.302	138.740	135.945	9.109
					148.379			9.409
8.639	175.079	173.029	167.298	158.998	150.074	143.160	140.564	9.715
8.933	174.877	172.924	157.508	159.738	151.381	144.859	142.396	10.028
					152.303			10.350
9.502	173.981	172.157	167.159	160.168	152.798	147.047	144.860	10.634
					153.062			10.975
10.154	172.464	176.748	166.057	159.620	153.035	148.021	146.127	11.328
					152.775			11.692
10.850	170.691	168-985	164.451	158.393	152.330	147.826	146.153	12.068
					151.734			12.455
					151.013			12.855
					150.201			13.268
					149.352			13.695
					148.532			14.138
					147.800			14.599
					147.193			15.078
					146.727			15.579
					146.403			16.102
15.156	168.178	165.100	160.524	153.169	146.215	141.447	139.781	16.650

MACH NO = 30.00 CONE ANGLE = 20.00 ANGLE OF ATTACK = 1.00

		9 /	P FREE-S	STREAM A	T PLANE	ANGLES	5	
L/RN	0.	30.	60.	90.	120.	150 •	180.	S/RN
15.616	168.304	166.224	160.631	153.222	146.150	141.256	139.538	17.140
16.178					146.167			17.738
16.769					146.253			18.367
					146.380			19.029
18.048					146.526			19.728
					146.678			20.458
19.482			161.519			141.686		21.254
					146.984			22,092
21.112	169.324	167.269	161.727	154.327	147.129	142.003	140.169	22.988
	169.353		161.792			142.150		23.952
22.996	169.357				147.355			24.993
					147.422			26.124
					147.453			27.359
					147.449			28.715
-					147.409			30.211
					147.353			31.619
					147.272			33.433
					147.187			35.455
					147.117			37.716
					147.082			40.252
					147.086			43.091
42.884	169.439	167.376	161.808	154.373	147.129	141.947	140.082	46.158
45.962	169.510	167.450	161.889	154.459	147.206	141.994	140.106	49.433
49.247	169.552	167-496	161.944	154.530	147.288	142.070	140.172	52.929
52.756	169.582	167.528	161.980	154.576	147.352	142.148	140.253	56.663
56.504	169.609	167.555	162.010	154.612	147.400	142.214	140.328	60.652
60.507	169.625	167.573	162.032	154.639	147.437	142.264	140.386	64.912
64.783	169.636	167.584	162.044	154.657	147.463	142.299	140.427	69.462
69.352	169.643	167.591	162.052	154.665	147.477	142.322	140.453	74.324
74.233	169.648	167.597	162.057	154.670	147.482	142.332	140.467	79.519
78.682	169.655	167.603	162.063	154.675	147.485	142.335	140.471	84.253
84.202	169.660	167.60.9	162.070	154.682	147.490	142.336	148.470	90.127
90.100	169.664	167.613	162.074	154.688	147.496	142.339	140.470	96.403
96.401	169,668	167.617	162.078	154.691	147.500	142.343	140.471	103.110
103.135	169.672	167.621	162.083	154.696	147.503	142.346	140.474	110.275
110.329	169.675	167.624	162.086	154.701	147.508	142.349	140.476	117.932
118.017	169.677	167.626	162.089	154.704	147.513	142.353	140.479	126.112
					147.517			
135.008	169.680	167.629	162.093	154.708	147.519	142.361	140.487	144.194
144.387	169.681	167.631	162.094	154.710	147.521	142.363	140.489	154.175
					147.523			
					147.524			
					147.525			
					147.526			
201.845	169.684	167.634	162.098	154.716	147.527	142.369	140.494	215.320

K#	/CH ИО =	3.50	CONE A	NGLE =	5.00	ANGLE	OF.	ATTACK =	3.00
						~	***		
				-STREAM			ANGL		o 40M
L/RN	0.	30.	60	• 91	3.	120•	150	. 180.	SZRM
•905	1.588	1.551	1.45	3 1.3	28 1	. 211	1.13	2 1.104	1.475
• 955	1.526	1.490	1.39	4 1.2	72 1		1.08		1.526
1.009	1.552	1.515	1.41	9 1.29	95 1.		1.10		1.580
1.127	1.563	1.527	1.43	1 1.3	08 1		1.11		
1.261	1.558	1.521	1.42	7 1.3	05 1		1.11		
1.412	1.548	1.513	1.41	9 1.29	99 1		1.11		
1.582		1.501		8 1.2			1.11		
1.77-2		1.484		4 1.2			1.11		
1.983		1.464					1.10		
2.097		1.453		6 1.2			1.10		
2.343		1.424					1.08		
2.613		1.397					1.07		
2.910		1.372	1.29				1.07		
3.233		1.350	1.27				1.06		
3.584		1.329	1.25	1 1.1	52 1	• 0.92	1.05		
3.964		1.311	1.23	3 1.1	45 1	.077	1.04		
4.374		1.295	1.21	8 1.1	31 1		1.03		
4.591	1.318	1.289		1 1.13			1.02		5.176
5.048				0 1-11			1.02		
5.537		1.259					1.01		
6.059				4 1.1			1.01		
6.615				9 1.0			1.01		7.208
7.207				5 1.0			1.01		7.802
7.835	_			4 1.0			1.01		
8.500				3 1.0			1.01		9.100
8.847	_	1.257		4 1.0			1.01		
9.57.0		1.259		5 1.0			1.02		
10.333		1.262					1.02 1.02		
11.137		1.265 1.269	1.17 1.18				1.03		
12.873		1.273	1.18				1.03		
13.809		1.278	1.18				1.04		
14.790	1.316	1.282	1.19				1.04		
	1.319			4 1.1			1.04		
16.352	1.323	1.288	1.19				1.05		
17.456	1.327	1.292	1.20				1.05		
18.611	1.331	1.296	1.20				1.06		
19.819	1.335	1.300	1.20			-	1.06		
21.082	1.339	1.303	1,21				1.06		
22.401	1.342	1.306	1.21				1.06		
23.779	1.346	1.309	1.2i				1.07		
24.491	1.347	1.311	1.21				1.07		
25.960	1.350	1.314					1.07		
27.492	1.353	1.316	1.22				1.07		
29.090	1.355	1.318	1.22			_	1.07		

1	MACH NO :	= 3.50	CONE A	NGLE =				
			OUNE A	MOLE =	5.00 A	NGLE OF	ATTACK =	7 00
		D /	/ D 5055				MITAUN -	3.00
L/RN	٠, ٥	~ ~	P FREE	-STREAM	AT PLA	NE ANGL	rc.	
		30.	60,	• 90				
30.754	4 70-				120	150	<ul> <li>180.</li> </ul>	S/RN
.32.489	1			1.14	0 4 004	_		
74.00			1.227				1.077	31.439
34.295	1.362	1.324					1.078	33.180
36.176	1.363	1.326		_ v = v ,	1.094	1.08		
37.145	1.364					1.081		34.993
39.141	1.366				1.096			36.881
41.218	1.367		1.233	1.146	1.097			37.854
43.379			1.234	1.147				39.858
45.625	- , ,		1.235		~			41.943
	,	1.332	1.236				1.081	44.112
47.961	1.371	1.333	1.237		,		1.082	440TTC
50.388	1.372	1.334	4 070			1.084		46.367
52.911	1.373	1.335	1.238			1.084		48.711
54.208	1.374	4 776	1.239	1.152	1.100	1.085		51.148
56.879	1.375	1.336	1.239	1.152		4 005		53.680
59.654	1 770	1.337	1.240	1.153	1.101	1.085		54.983
62.535	1.375	1.338	1.241	1.153	1.101	1.085	1.083	57.664
	1.376	1.338	1.242	1.154	1.101	1.085	1.083	60.449
65.526	1.377	1.339	1.242	1.124	1.102	1.085	1.083	63.341
68.632	1.378	1.340	1.243	1.154	1.102	1.085	1.083	66 341
71.856	1.378	1.340	1.243	1.155	1.102	1.086	1.083	66.344
75.201	1.379	1.341	1.243	1.155	1.102	1.086		69.461
76.921	1.37-9	1.341	1.244	1.155	1.103	1.086	1.083	72.697
80.458	1.380	1.341	1.244	1.156	1.103	Ť•00 <i>P</i> -	1.083	76.056
84.128		1.342	1.245	1.156		1.086	1.083	77.782
87.936	1.380	1.342	1.245	1.156	1.103	1.086	1.083	81.333
0/ -935	1.381	1.343	1.245		1.103	1.086		85.017
91.886	1.381	1.343	1.246	1.157	1.103	1.086		88.839
95.983	1.382	1.343	1,246	1.157	1.104	1.086		00.039
100.232	1.382	1.344	1,240	1.157	1.104	1.086		92.804
104.640	1.382	1,344	1.247	1.158	1.104	1.086	1.003	96.917
106.904	1.382		1.247	1.158	1.104	1.086	1.083 1	01.183
111.559	1.383	1.344	1.247	1.158	1.104		1.083 1	05.607
116.385		1345	1.247	1.158	1.104	1.086	1.083 1	07.88n
121.390	1.383	1.345	1.248	1.158	4 404	1.086	1.083 1	12.552
126 500	1.383	1.345	1.248	1.159	1.104	1.087	1.083 1	7.397
126.580	1.384	1.345	1.248		1.105	1.087	1.083 12	29 494
131.960	1.384	1.346	1.248	1.159	1.105	1.087	1.083 12	-C 0 44. <u>-L</u>
137.539	1.384	1.346		1.159	1.105	1.087	1 007 47	7.630
143.324	1.384	1.346	1.249	1.159	1.105	1.087	1.083 13	3.032
146.295	1.384		1.249	1.159	1.105	1.087	1.083 13	8.632
152.401	1.385	1.345	1.249	1.159	1.105	1.007	1.083 14	4.438
158.732	4 700	1.346	1.249	1.160	1.105	1.087	1.083 14	7.421
165.296	1.385	1.346	1.249	1.160		1.087	1.083 15	3.551
172 400	1.385	1.347	1.249	1.160	1.105	1.087	1.083 15	9.906
172.102	1.385	4	1.250	4 460	1.105	1.087	1.083 16	50 50 0 6 - 40 E
179.158	1.385	4	1.250	1.160	1.106	1.087	1.083 17	∪•47,5 ₹ 70.6
186.473	1.385	A		1.160	1.106	1.087	1.087 4	3.365
194.059		4	1.250	1.160	1.106	1.087	1.083 18	U • 40 9
	1 4	<b>A</b>	1.250	1.160	1:106	1.087	1.083 18	7753
•	- + 009	1.347	1.250	1.160	1.106		1.083 19	5.367
						1.087	1.083 20	3.263

MACH	1 NO =	5.00	CONE ANGL	E = 5.00	ANGLE	OF ATT	ACK = 3	5 • VU
						ANGLES		
			P FREE-ST	REAM AT	PLANE 120•	150 •	180.	S/RN
L/RN	0.	30.	60 •	90.	120 •	150.	100.	
			0.710	2.128	1.924	1.786	1.738	1.483
.912	2.588	2.522	2.348		1.834	1.700	1.653	1.536
•966	2.484	2.419	2.249	2.033 2.078	1.877	1.741	1.694	1.596
1.024	2.534	2.468	2.296	2.078	1.883	1.752	1.705	1.728
1.157	2.519	2.456	2.290	2.070	1.851	1.725	1.681	1.882
1.310	2.465	2.403	2.242	1.987	1.808	1.689	1.647	2.061
1.488	2.401	2.341	2.185	1.930	1.761	1.648	1.609	2-266
1.693	2.327	2.269	2.119	1.866	1.708	1.603	1.567	2.501
1.927	2.243	2.188	2.045 1.963	1.796	1.649	1.554	1.521	2.767
2.192	2.151	2.099	1.879	1.724	1.590	1.504	1.475	3.065
2.488	2.059	2.009		1.652	1.529	1.453	1.428	3,398
2.820	1.972	1.923	1.722	1.581	1.467	1.400	1.378	
3.191	1.890	1.843		1.516	1.408	1.347	1.328	
3.602	1.815	1.769 1.736		1.486	1.381	1.322	1.304	4.404
3.823	1.781	1.674		1.430	1.330	1.275	1.260	4.878
4.294	1.719	1.62-3		1.380	1.285	1.235	1.221	5.392
4.806	1.667	1.580		1.338	1.246	1.199	1.187	5.948
5.360	1.625	1.545		1.302	1.212	1.168	1.158	6.547
5.957	1.591	1.518		1.27-3	1.184	1.142	1.132	7.188
6.595	1.546	1.498		1.249	1.161	1.120	1.111	7.87.2
7.277	1.533	1.484	_	1.231	1.142	1.103	1.094	
8.002 8.770	1.526	1.475		1.216	1.128	1.089	1.081	
9.582	1.522	1.470		1.206	1.117	1.079		
10.438	1.523	1.469		1.199	1.109	1.072	1.065	11.045
11.339	1.527	1.47.2		1.194	1.104	1.067	1.061	11.949
12.284	1.534	1.476	-	1.192	1.101	1.065	1.058	
12.773	1.53.8	1.480		1.191	1.100	1.064	1.058	
13.786	1.548	1.487		1.192	1.100	1.064	1.058	
14.845	1.559	1.497		1.194	1.101	1.066	1.060	
15.950	1.57-0	1.507	7 1.348		1.102	1.068	1.063 1.067	
17.102	1.583		8 1.355		1.105	1.071	1.057	
18.301	1.596	1.529			1.108	1.075	1.075	
19.548	1.608	1.54		1.210	1.112	1.080		
20.844	1.621	1.55		1.215	1.116	1.084	1.086	
22.188	1.633	1.56		1.220	1.120	1.089	1.091	
23.583	1.644			1.225	1.124	1.098	1.096	
25.026	1.654			1.230	1.128 1.132	1.103		
26.525	1.664			1.235		1.107		
28.074	1.673			1.249	1.136 1.138	1.109		
28.869	1.678			1.243	1.142	1.113		
30.498	1.686			1.247	1.145	1.117		
32.181	1.693	1.61		1.252 1.256	1.149	1.120		
33.921	1.700	. 1			1.152	1.123		
35.716	1.706				1.155	1.126		
37.569	1.712	1.63	5 1.446	1.500	T + T 2.7			

М	ACH NO =	5.00	CONE ANG	LE = 5.	00 ANGL	E OF ATT	ACK =	3.00
			P FREE-S	TOTAM A	T PLANE	ANCI CO		
L/RN	0.	30.	60.			ANGLES	400	0.484
CAKIN	0 •	30 •	60 •	90•	120.	150.	180.	SZRN
39.481	1.717	1.540	1.451	1.267	1.157	1.129	1.129	1.0 400
41.452	1.721	1.644	1.455	1.270	1.160	1.131	1.131	40.199
43.484	1.725	1.648	1.458	1.273	1.162	1.131	1.134	42.178
45.578	1.729	1.652	1.462	1.275	1.165			44.218
47.736	1.733	1.656	1.465	1.279	1.167	1.135	1.136	46.320
49.957	1.736	1.659	1.468	1.281	1.169	1.137	1.137	48.485
51.093	1.738	1.660	1.469	1.282		1.138	1.139	50.715
53.414	1.740	1.663	1.472		1.170	1.139	1.139	51.855
55.802	1.743	1.665		1.285	1.171	1.140	1.141	54.185
58.260	1.745	1.668	1.474	1.287	1.173	1.141	1.142	56.583
60.788	1.747	1.670	1.476	1.289	1.174	1.142	1.143	59.050
63.388			1.478	1.290	1.176	1.143	1.144	61.588
66.062	1.749	1.672	1.480	1.292	1.177	1.144	1.144	64.198
68.812	1.751	1.674	1.482	1.294	1.179	1.145	1.145	66.882
	1.753 1.755	1.675	1.484	1.295	1.180	1.146	1.145	69.642
71.638 74.543		1.677	1.485	1.297	1.181	1.146	1.146	72.479
77.528	1.756	1.678	1.487	1.298	1.182	1.147	1.146	75.395
80.597	1.757 1.759	1.680	1:.488	1.299	1.183	1.148	1.147	78.392
83.749		1.681	1.489	1.300	1.184	1.148	1.147	81.472
	1.760	1.682	1.491	1.301	1.184	1.149	1.147	84.636
85.358	1.760	1.683	1.491	1.302	1.185	1.149	1.147	86.251
88-642	1.761	1.684	1.492	1.302	1.186	1.149	1.148	89.548
92.017	1.762	1.685	1.493	1.303	1.186	1.150	1.148	92.935
95.485	1.763	1.686	1.494	1.304	1.187	1.150	1.148	96.417
99.049	1.764	1.687	1.495	1.305	1.188	1.150	1.148	99.994
102.712	1.765	1.687	1.496	1.306	1.188	1.351		103.672
106.478	1.765	1.688	1.497	1.306	1.189	1.151		107.452
110.350	1.766	1.689	1.497	1.307	1.189	1.151		111,339
114.332	1.766	1.689	1.498	1.307	1.190	1.152		115,336
118-428	1.767	1.690	1.499	1.308	1.190	1.152		119.448
122.642	1.767	1.690	1.499	1.308	1.191	1.152	-	123.678
126.979	1.767	1.691	1.500	1.309	1.191	1.153		128.032
131.444	1768	1.691	1-500	1.309	1.191	1.153		132,513
133.725	1.768	1.692	1.501	1.310	1.192	1.153		134.803
138.390	1.768	1.692	1:.501	1.310	1.192	1.153		139.486
143.194	1.768	1.692	1.502	1.310	1.192	1.153		144.308
148.143	1.768	1.692	1.502	1.311	1.193	1.154		149.276
153.242	1.768	1.693	1.503	1.311	1.193	1.154	1.150	154.395
158.497	1.768	1.693	1.503	1.311	1.193	1.154	1.150	159.670
163.913	1.768	1.693	1.504	1.312	1.193	1.154		165.106
169.495	1.768	1.693	1.504	1.312	1.194	1.154		170.710
175.251	1.768	1.694	1.504	1.312	1.194	1.155		176.487
181.184	1.768	1.694	1505	1.312	1.194	1.155	1.150	182.443
187.302	1.768	1.694	1.505	1.313	1.194	1.155		188.585
193.611	1.768	1.694	1506	1.313	1.195	1155	1.151	194.917
200.116	1.768	1.694	1.505	1.313	1.195	1.155		201.447

	MACH	NO =	10.00	CONE	ANGLE	=	5.00	. <b>A</b>	NGLE	OF	ATT	ACK =	3.00
			2.4	0 55	SE CED	C 4 M	4.	-OLA	Ne (	ANCI	E.C.		
		•		PFR	REE-STR					ANGL		180	. S/RN
L	RM	0.	30.		60.	9	0 •	120	•	150	•	100	• SZKIN
. 9:	17	8.613	8.378	7	760	6.9	8.0	6.26	.6 5	5.78	12	5.61	4 1.484
1.0		8.352	8.122			6.7		6.05		5.58		5.42	
1.0		8.278	8.054			6.7		6.04		5.58		5.42	
1.3		7.797	7.587			6.3		5.73		5.31		5.17	
1.5		7.435	7.237			6.0		5.49		5.10		4.97	
1.7		7.045	6,858			5.7		5.23		4.88		4.75	
2.0		6.431	6.2F1			5.2		4.81		4.51		4.41	
2.3		6.010	5.853			4.9		4.54		4.27		4.18	
2.8		5.428	5.283			4.4		4.12		3.91		3.84	
3.1		5.067				4.1		3.85		3.66		3.60	
3.5		4.733				3.9		3,60		3.43		3.38	
4.2		4.292	4,170			3.5		3.25		3.11		3.07	
4.6		4.038				3.2		3.04		2.92		2.89	
5.1		3.815				3.0		2.85		2.74		2.71	
6.0		3.535				2.8		2.60		2.50		2.48	
6.5		3.380				2.6		2.46		2.36		2.34	
7.5		3.188	3.069			2.4		2.27		2.1		2.16	
8.2		3.084			664	2.3		2.16		2.08		2.06	
8.8		2.997			.570	2.2		2.07		1.9		1.96	
10.0		2.892			453	2.1		1.95		1.86		1.84	9 10.606
10.7		2.839			.389	2.0		188		1.8		1.78	11.380
11.9		2.778			.309	1.9		1.79		1.7		1.69	2 12.596
12.8		2.751	2.607		.267	1.9		1.74		1.6	61	1.64	2 13.441
13.6		2.731			.231	1.9		1.70	32	1.6	17	1.59	7 14.313
15.0		2.718			.190	1.8	54	1.64	<b>•</b> 5	1.5	59	1.54	15.673
15.9		2.717			.170	1.8	25	1.61	Ļ2	1.5	25	1.50	17 16.613
16.9		2.724			.155	1.7	99	1.58	32	1.49	96	1.47	
18.4		2.745		2	.141	1.7	68	1.54	+4	1.4	57	1.43	
19.4		2.766	2.573	2	.137	1.7	52	1.52		1.4	35	1.41	
21.0		2.897	2.601	2	.138	1.7	33	1.45		1.4		1.38	
22.1	81	2.840	2.625	2	.143	1.7		1.47	79	1.3	90	1.37	
23.3	16	2.877	2.653	2	•152	1.7	16	1.48		1.3	76	1.35	
25.0	78	2.939	2.701	2	.170	1.7	10	144	+9	1.3	58	1.34	
26.2		2.984	2.736	2	.1.86	1.7	0.6	1.4	39	1.3	47	1.33	
27.5	45	3.032	2.775	2	.204	1.7	'១ខ	1.4	31	1.3	39	1.32	
29.4	91	3.197	2.837	2	.235	1.7	12	1.4	21	1.3	28	1.31	
308	35	3.158	2.880	2	.259	1.7		1.4	16	1.3	22	1.30	
32.9	326	3.236	2.946	2	.298	17	25	1.4		1.3		1.30	
34.3	371	3.287			.325	17		1.4		1.3		1.30	
35.8	357	3.338	3.036		.354	1.7		1.4		1.3		1.29	
38.1	.66	3.411			•398	17		1.4		1.3		1.29	
39.7	159	3.457			.428		68	14	-	1.3		1.29	
42.2	227	3.522			.472	1.7		1.4		1.3		1.30	
43.9	325	3.562			.502	1.8		1.4		1.3		1.3	
45.6	65	7.600	3.277	, 5	.531	1.8	315	1.4	0.9	1.3	05	1.3	05 46.407

MAC	CH NO =	10.00	CONE	ANGL	E =	5.00	ANGLE	E OF	ATT	ACK =	3.00
					5-14	4	01 4115	Auci			
					REAM		PLANE	ANGL		4.00	SZRN
LZRN	0.	30.	(	50.	90	•	120.	150	•	180.	SZKN
. 0 753	3.651	3.327	2.1	572	1.83	16	1.413	1.30	7	1.309	49.104
48.352		3.358		598	1.85		1.416	1.30		1.312	50.952
50.193	3,683	•		623		57.	1.420	1.30		1.316	52.839
52.073	3.712	3.386		658	1.88		1.426	1.31		1.321	55.742
54.965	3.752	3.426			1.9		1.431	1.31		1.325	57.703
56.918	3.776	3.449		680			1.438	1.31		1.330	60.657
59.861	3.809	3.482		709	1.93		1.444	1.31		1.333	62.637
61.834	3.828	3.502		727	1.93		1.449	1.31		1.336	64.627
63.816	3.845	3.520		744	1.9		1.458	1.32		1.340	67.634
66.812	3.868	3.544		767	1.98		1.464	1.32		1.343	69.659
68.829	3.881	3.559		781	1.99		1.473	1.32		1.347	72.735
71.893	3.898	3.579		800	2.00		1.479	1.32		1.350	74.817
73.967	3.907	3.591		812	2.0		1.485	1.33		1.352	76.929
76.072	3.914	3.602		823	2.0		1.494	1.33		1.356	80.163
79.293	3.922	3.617		839			1.500	1.33		1.358	82.366
81.487	3.924	3.625		849	2.0		1.506	1.3		1.360	84.610
83.723	3.924	3,632		858	2.0/			1.3		1.363	88.059
87.159	3.921	3.640		870	2.0		1.515	1.3		1.364	90.415
89.506	3.917			878	2.0		1.521			1.367	
93.117	3.911	3.645		889	2.0		1.530	1.34		1.368	96.519
95.587	3.907			896	2.0		1.536	1.3		1.370	
98.109	3.904			902	2.0		1.541	1.3			102.948
101.991	3.901			911	2.0		1.549	1.3			105.617
104.650	3.900			917	2.1		1.554	1.3			108.343
107.366	3.899			922	2.1		1.559	1.3			112.545
111.552	3.898			931	2.1		1.566				115.424
114.420	3.897			936	2.1		1.570	1.3			119.864
118.843	3.895			943	2.1		1.577	1.3			122.908
121.875	3.893			948	2.1		1.581 1.584	1.3			126.020
124.976	3.891			951	2.1			1.3			130.822
129.759	3.889			956	2.1		1.590 1.593	1.3			134.114
133.038	3.887			958	2.1		1.597	1.3			139.194
138.099	3.885			960	2.1		1.600	1.3			142.677
141.569	3.883	3.620		968	2.1						146.240
145.119	3.882			961			1.603	1.3			151.739
150.596	3.880			961	2.1		1.606				155.509
154.352	3.879			961	2.1		1.609	1.3			159.366
158.194	3.878			961	2.1		1.611	1.3			165.316.
164.122	3.878			961	2.1		1.614	1.3		_	
168.186	3.877			960	2.1		1.615	1.4			169.396
174.457	3.877			959	2.1		1.618	1.4			175.690
178.756	3.877			959	2.1		1.619	1.4			180.006
183.153	3.877			958	2.1		1.621	1.4			184.419
189.936	3.878			956	2.1		1.623	1 - 4		-	191.228
194.586	3.878			955	2.1		1.624	1.4			195.897
201.761	3.879	3.605	2	953	2.1	. B U	1-625	1.4	12	1.591	203.098

CONE ANGLE = 5.00 ANGLE OF ATTACK = 3.00 MACH NO = 15.00 P / P FREE-STREAM AT PLANE **ANGLES** 180. S/RN 150. 0. 60. 90. 120. L/RN 30. 15.080 .913 18.148 16.790 13.512 12.457 12.091 1.484 18.664 14.557 12.009 11.654 1.587 18.059 17.554 16.228 13.033 1.016 17.517 17.040 15.791 14.216 12.783 11.819 11.483 1.727 1.156 15.896 14.741 13.293 11.988 11.119 10.817 1.981 1.408 16.339 12.272 1.1.114 10.349 10.084 2.283 15.017 14.613 13.570 1.709 9.515 9.292 11.171 10.166 2.644 2.069 13.618 13.254 12.320 8.701 10.072 9.230 8.524 3.064 2.488 12.220 11.896 11.064 9.020 8.303 7.874 7.735 3.549 2.971 10.943 9.895 10.648 7.438 7.083 6.974 4..102 3.521 9.781 9.515 8.831 8.056 6.597 6.506 4.509 3.927 9.088 8.834 8.185 7.466 6.908 4.594 8.179 7.938 7.326 6.668 6.181 5.930 5.862 5.179 6.599 5.983 5.543 5.333 5.282 5.918 7.421 7.187 5.331 5.406 4.998 4.811 4.770 6.727 6.137 6.797 6.567 5.994 4.923 4.537 4.365 4.329 7-604 7.010 6.289 6.060 5.493 4.522 4.149 3.988 3.954 8.543 5.081 7.946 5.878 5.647 9.544 4.189 3.824 3.668 3.635 8.942 5.547 5.313 4.743 4.463 3.911 3.551 3.398 3.365 10.600 9.995 5.282 5.042 4.233 3.678 3.321 3.169 3.136 11.709 11,100 5.071 4.824 3.037 4.703 3.544 3.188 3.003 12.476 11.863 4.957 4.103 4.819 4.555 3.936 3.369 3.013 2.863 2.829 13,664 13.047 2.714 2.680 14.894 4.717 3.799 3.221 2.863 14.273 4.440 2.734 2.552 16.164 3.095 2.586 15.538 4.646 4.355 3.688 2.442 16.839 4.602 4.294 3.598 2.989 2.622 2.475 17.471 2,525 2.345 4.583 4.256 3.527 2.898 2.378 18.811 18.175 2.440 2.293 2.261 19.542 4.585 4.238 3.472 2.820 20.184 4.606 4.237 3.432 2.754 2,366 2.219 2.188 21.585 20.939 4.253 3.404 2.699 2.300 2.154 2.123 23.016 22.363 4.646 2.261 2.114 2.084 23.984 4.272 3.393 2.667 4.682 23.328 2.208 2.032 25.458 2.625 2.061 24.797 4.750 4.312 3.384 26.289 3.385 2.591 2.162 2.014 1.985 26.957 4.833 4.366 1.972 1.944 27.806 3.395 2.563 2.120 28.480 4.931 4.433 2.541 2.084 1.935 1.908 30.025 29.346 5.043 4.511 3.414 31.593 30.908 5.166 4.601 3.441 2.525 2.051 1.901 1.876 2.022 32.491 5.300 4.700 3.476 2.513 1.871 1.847 33.182 2.505 3.517 1.996 1.845 1.822 34.792 34.095 5.443 4.809 1.800 36.423 35.719 5.593 4.925 3.565 2.502 1,973 1.821 3.601 2.501 1.959 1.806 1.786 37,520 36.812 5.696 5.006 1.768 2.504 1.941 1.787 39.182 3.658 38.467 5.853 5.132 1.752 40.860 40.140 6.011 5.261 3.721 2.510 1.924 1.769 1.739 1.909 42.555 41.828 6.167 5.392 3.788 2.519 1.753 43.531 6.320 5,522 3.859 2.531 1.897 1.738 1.727 44.264 1.726 1.716 45.986 45.246 6.468 5.651 3.933 2.546 1.885 1.707 47.720 46-973 6.610 5.777 4.008 2.563 1.875 1.714 6.745 2.582 1.867 1.703 1.700 49.463 48.710 5.899 4.085

2.604

1.860

1.694

1.694

51.217

4.162

6.016

6.872

50.457

MAt	CH NO =	15.00	CONE ANGL	E = 5.0	0 ANGL	E OF ATT	ACK =	3.00
		5 (	n cocc-61	REAM AT	PLANE	ANGLES		
4 45111			P FREE-ST	90.	120.	150.	180.	SZRN
L/RN	0.	30.	00•	99.	1200	100	1000	<b>V</b> ,
51.627	6.952	6.091	4.214	2.619	1.856	1.688	1.690	52.391.
53.389	7.066	6.199	4.290	2.644	1.850	1.680	1.685	54.160
55.164	7.171	6.301	4.365	2.670	1.846	1.672	1.681	55.941
56.952	7.268	6.397	4.438	2.698	1:843	1.665	1.678	57.737
58.761	7.356	6.488	4.510	2.727	1.841	1.659	1.676	59.552
60.595	7.435	6.574	4.580	2.757	1.840	1.653	1.674	61.394
62.464	7.505	6.654	4.647	2.789	1.841	1.647	1.672	63.270
64.376	7.564	6.728	4.712	2.822	1.842	1.642	1.671	65.190
66.342	7.611	6.797	4.776	2.856	1.844	1.637	1.671	67.163
67.687	7.635	6.839	4.817	2.879	1.846	1.634	1.671	68.512
69.762	7.656	6.897	4.877	2.915	1.850	1.630	1.671	70.595
71.915	7.660		4.935	2.952	1.856	1.626	1.671	72.756 75.005
74.155	7.645	6.985	4.990	2.989	1.862	1.622 1.619	1.671	77.350
76.491	7.614		5.044	3.026	1.870	1.616	1.672	79.801
78.932	7.574		5.095	3.064	1.879 1.890	1.614	1.673	82.367
81.488	7.534		5.143 5.189	3.102 3.139	1.902	1.612	1.674	85.048
84.159	7.499		5.232	3.174	1.915	1.610	1.675	87.856
86.957	7.471			3.174	1.924	1.609	1.675	89.805
88.899	7.456 7.436			3.231	1.940	1.608	1.676	92.829
91.911 95.010	7.420			3.263	1.956	1.608	1.677	
98.200	7.405			3.293	1.973	1.608	1.677	
101.487	7.391			3.320	1.990	1.609		102.442
104.874	7.380			3.345	2.008	1.610	1.677	105.842
108.367	7.369			3.368	2.027	1.512	1.677	109.348
111.969	7.359			3.389	2.045	1.614		112.964
115.682	7.350			3.408	2.063	1.617		116.692
118.222	7.344		5.384	3.420	2.075	1.619		119.240
122.127	7.337	6.742		3.438	2.092	1.623		123.161
126.150	7.333			3.455	2.110	1.627		127.199
130.292	7330			3.472	2.126	1.631		131.357
134.557	7.329			3.490	2.142	1.636		135.638
138.946	7.330			3.509	2.157	1.641		140.044
143.465	7.332				2.172	1.646		144.580 149.248
148.115	7.334			3.549	2.186	1.652		154.053
152.902	7.335			3.567	2.198	1.657		157.334
156.170	7.336			3.580	2.206 2.218	1.661 1.667		162.375
161.192	7.336			3.596 3.611	2.228	1.674		167.563
166.360	7.337			3.624	2.237	1.680		172.902
171.679	7.338			3.635	2.245	1.686		178.396
177.152	7.339	=		3.643	2.253	1.692		184.049
182.784 188.580	7.341 7.343			3.649	2.259	1.698		189.867
194.543	7.345			3.654	2.265	1.705		195.854
200.680	7.347			3-657	2.270	1.711		202.014
F00 4 500	, • • •	J + 1 1 1		·	=	= =		

MACH NO = 20.00CONE ANGLE = 5.00 ANGLE OF ATTACK = 3.00 P / P FREE-STREAM AT PLANE AMGLES 90. L/RN 150. 180. S/RN 0. 30. 60. 120. 32.734 31.823 23.658 21.802 21.157 .913 29.430 26.418 1.484 28,179 20.948 20.335 1.079 31.306 30.443 25.317 22.706 1.650 29.990 29.167 27.021 24.326 21.887 20.254 19.685 1.804 1.232 25.070 22.615 20.409 18.435 2.071 1.498 27.786 27.031 18.943 1.935 24.520 23.861 22.166 20.073 18,229 17.025 16.610 2.510 22.008 2.330 21.427 19.925 18.111 16.553 15.560 15.226 2.906 2.787 19.140 17.787 16.203 14.893 14.094 13.832 19.671 3.365 3.498 16.867 16.407 15.227 13.887 12.819 12.204 12.014 4.079 15.057 11.434 4.693 13.541 12.346 10.936 10.792 4.110 14.629 12.086 10.992 10.194 9.793 9.689 5.377 4.791 13.520 13.113 11.471 10.496 9.491 8.789 8.465 8.392 6.394 5.804 11.861 6.640 10.873 10.488 9.534 8.571 7.916 7.625 7.564 7.233 7.538 10.065 9.681 8.738 7.803 7.179 6.911 5.856 8.134 9.215 7.886 6.122 6.071 9.425 8.824 8.827 6.973 6.375 9.850 8.715 8.321 7.372 6.468 5.882 5.635 5.583 10.455 6.043 7.906 6.945 5.465 5.222 5.169 11.533 10.924 8.310 7-892 5.004 7.471 6.483 5.576 4.765 4.712 13.037 12.423 4.425 13.592 6.202 14.211 7.654 7.216 5.285 4.716 4.479 14.795 7.469 7.012 5.966 5.036 4.466 4.232 4.179 15.419 16.446 7.295 6.808 5.713 4.758 4.184 3.952 3.900 17.076 3.773 3.721 17.715 7.210 5.559 4.582 4.003 18.350 6.698 5.433 3.616 19.007 7.160 6.620 4.429 3.844 3.565 19.647 6.559 5.301 4.257 3.660 3.434 3.384 21.407 20.761 7.140 6.542 5.226 3.540 3.315 3.267 22.096 7.158 4.147 22.747 23.444 7.201 6.547 5.167 4.051 3.434 3.210 3.163 24.101 25.259 7.297 6.587 5.114 3.943 3.309 3.086 3.040 25.923 26.631 7.396 6.639 5.090 3.874 3.226 3.004 2.960 27.299 7.518 6.710 5.079 3.152 2.930 2.888 28.683 28.008 3.814 29.852 7.713 5.833 5.082 3.748 3.063 2.843 2.802 30.534 31.238 7.883 6.944 5.098 3.706 3.005 2.784 2.745 31.925 32.625 8.071 7.071 5.123 3.671 2.951 2.731 2.694 33.317 34.473 7.264 5.173 2,633 35.172 8.348 3.634 2.887 2.667 35.857 8.573 7.424 5.220 3.613 2.844 2.624 2.592 36.561 2.585 2.554 37.948 37.238 8.810 7.596 5.275 3.596 2.805 39.074 9.142 7.841 5.361 3.581 2.758 2.537 2,510 39.790 2.480 40.444 9.399 8.035 5.434 3.575 2.726 2.535 41.156 8.235 5.513 3.572 2.697 2.475 2.452 42.536 41.809 9.660 8.510 2.662 2.420 44.353 43.620 10.012 5.627 3.574 2.439 5.719 2.414 2.398 45.708 44.969 10.274 8.720 3.579 2.638 46.311 10.534 8.932 5.815 3.586 2.616 2.392 2.377 47.056 2.363 48.090 10.872 9.213 5.949 3.601 2.589 2.353 48.841 49.415 11.118 9.422 6.054 3.615 2.571 2.344 2.337 50.171 50.733 11.355 9.628 6.161 3.631 2.555 2.326 2.322 51.494 2.534 2.303 2.304 52.483 11.656 9.897 6.307 3.656 53.250 2.292 53.790 11.869 10.093 6.418 2.520 2.288 54.563 3.677

MAC	CH NO =	20.00	CONE ANGL	E = 5.00	) ANGL	E OF ATT	ACK =	<b>3 •</b> ⁻₩.₩
			5 FDFF 67	REAM AT	PLANE	ANGLES		
	_	×	P FREE-ST	90 •	120 ·	150.	180.	SZRN
L/RN	0.	30.	60.	70.	120.	190•	1000	
	40.070	40 207	6.530	3.699	2.508	2.273	2.281	55.874
55.096	12.070	10.283	6.644	3.724	2.496	2.259	2.271	57.186
56.404	12.258	10.468	6.796	3.760	2.482	2.241	2.258	58.944
58.154	12.487	10.704	6.911	3.789	2.472	2.229	2.250	60.272
59.478	12.640	11.037	7.026	3.821	2.463	2.216	2.242	61.615
60.816		11.241	7.179	3.865	2.453	2.201	2.233	63.435
62.628	12.926	11.384	7.295	3.901	2.446	2.190	2.227	64.827
64.016	13.070	11.517	7.410	3.939	2.440	2.179	2.221	66.249
65.432	13.105	11.673	7.562	3.993	2.434	2.164	2.21.4	68.199
67.374 68.877	13.109	11.772	7.676	4.036	2.430	2.154	2.209	69.707
70.425	13.060	11.853	7.789	4.081	2.427	2.143	2.204	71.261
72.569	12.975	11.925		4.145	2.424	2.130	2,199	73.414
74.237	12.894	11.949		4.196	2.423	2.128	2.195	75.088
75.953	12.808	11.945		4.248	2.424	2.110	2.192	76.811
78.328	12.692	11.898		4.320	2.426	2.097	2.167	79.195
80.182	12,610	11.837		4.376	2.429	2.087	2.184	
8.2.106	12.536			4.433	2.434	2.078	2.181	82-987
84.794	12.447			4.512	2.442	2.065	2.177	85.685
86.911	12.388			4.571	2.450	2.056	2.174	
89.126	12.337			4.632	2.459	2.048	2.171	90.034
92.248	12.280			4.713	2.475	2.037		93.167
94.728	12.245			4.775	2.489	2.029	2.164	
97.340	12.216			4.836	2.504	2.021	2.161	98.279
101.048	12.185		8.954	4.917	2.529	2.012		102.002
104.006	12.165	11.101	8.934	4.976	2.549	2.005		104.970
107.102	12.150			5.035	2.572	1.999		108.078
111.465	12.137	11.037		5.111	2.605	1.993		115.882
114.876	12.133			5.167	2.632	1.989		119.400
118.381	12.134			5.223	2.560	1.985 1.982		124.242
123,204	12,140			5.296	2.698 2.728	1.981	2.121	127.987
126.935	12.147			5.351	2.758	1.981		131.833
130.766	12.154			5.404 5.471	2.799	1.982		137.119
136.032	12.162	11.003	8.533	5.518				141.206
140.104	12.166			5.560	2.860	1.986		145.401
144.282	12.169			5.607	2.899	1.990		151.166
150.025	12.172			5.635	2.928	1.994		155.622
154.465	12.174			5.656	2.955	1.998		160.196
159.021	12.177			5.676	2.989	2.005		166.482
165.284	12.185			5.684	3.014	2.011		171.342
170.125	12.186		_	5.687	3.036	2.018		176.329
175.093 181.924	12.19			5.687	3.064	2.027	2.055	183,186
187.205				5.684	3.084	2.035	2.061	188.488
192.628	12.197			5.679	3.102	2.042		193.931
200.084	12.20			5.672	3.125	2.054	2.053	201.415
200000			-					

MACH NO = 25.00	CONE ANGLE =	5.00	ANGLE OF	ATTACK =	3.00

		P /	P FREE-S	TREAM A	T PLANE	ANGLES		
L/RN	0 •	30.	60.	90.	120.	150.	180.	S/RN
.913	50.827	49.401	45.688	40.988	36.716	33.818	32.806	1.484
1.078	48.577	47.234	43.717	39.263	35.209	32.472	31.517	1.650
1.315	45.403	44.158	40.911	36.836	33.164	30.708	29.855	1.887
1.701	40.540	39.444	36.608	33.082	29.538	27.859	27.139	2.27-5
2.056	36.643	35.658	33.127	30.021	27.299	25.533	24.927	2.631
2.621	31.549	30.701	28.532	25.979	23.835	22.505	22.064	3.199
3.299	27.022	26.230	24.407	22.253	20.514	19.498	19.179	3.879
3.885	24.048	23.376	21.662	19.758	18.277	17.452	17.207	4.467
4.772	20.740	20.117	18.545	16.869	15.647	15.035	14.876	5.357
5.777	18.133	17.538	16.052	14.519	13.450	12.960	12.851	6.367
6.606	16.574	15.988	14.539	13.077	12.083	11.646	11.555	7.199
7.805	14.923	14.341	12.917	11.514	10.586	10.192	10.113	8.402
9.100	13.660	13-072	11.652	10.284	9.394	9.021	8.946	9.702
10.130	12.912	12.315	10.886	9.533	8.661	8.297	8.221	10.736
11.570	12.126	11.510	10.056	8.708	7.854	7.497	7.419	12.182
13.079	11.534	10.891	9.397	8.042	7 <sub>-</sub> 198	6.847	6.769	13.696
14.249	11.193	10.525	8.993	7.626	6.785	6.438	6.360	14.871
15:-:854	10.851	10.146	8.551	7.158	6.316	5.975	5.898	16.482
17.501	10.619	9.868	8.199	6.771	5.924	5.588	5.512	18.135
19.183	10.476	9.674	7.921	6.448	5594	5.262	5.187	19.823
20.462	10.420	9.576	7.752	6.241	5.378	5.049	4.976	21.107
22.185	10.407	9.499	7.572	6.005	5.128	4.802	4.732	22.837
23.923	10.458	9.478	7.436	5.805	4.911	4.589	4.521	24.581
25.231	10.537	9.496	7.359	5.676	4.•768	4.448	4.382	25.895
26978	10.692	9.563	7.286	5.527	4.599	4.282	4.219	27.649
28.724	10.904	9.675	7.243	5.481	4-450	4.136	4.076	29.400
30.028	11.098	9.787	7.230	5.320	4:.350	4.038	3.980	30.710
31-759	11.401	9.973	7.235	5.228	4-,231	3.921	3.866	32.447
33.476	11.751	10.198	7.264	5.152	4.126	3.817	3.765	34.171
34.753	12.042	10.390	7.30.0	5.104	4.054	3.746	3.697	35.452
36,439	12.463	16.675	7.366	5.050	3.968	3.661	3.616	37-145
38.105	12.918	10.989	7.450	5.009	3.890	3.584	3.543	38.818
39.341	13.278	11.242	7.525	4.984	3.837	3.532	3.493	40.058
40-969	13.777	11.600	7.638	4.959	3-,773	3.468	3.433	41.692
42.573	14.293	11,977	7.766	4.942	3.715	3.411	3.379	43.303
43.761	14.688	12.270	787-0	4.934	3.676	3.371	3.342	44.495
45.324	15.218	12.671	8.019	4.930	3.627	3.322	3.297	46.065
46-864	15.748	13.081	8.178	4.931	3.583	3.277	3.257	47.611
48.382	16.272	13.496	8.346	4.938	3:.543	3.236	3.220	49.134
49.506	16.658	13.809	8.478	4.947	3.515	3.207	3.195	50.263
50.989	17.159	14.224	8.660	4.962	3.480	3.17.2	3.164	51 - 751
52.454	17.641	14.637	8.848	4.982	3.448	3.139	3.136	53.222
53.545	17.987	14.942	8.994	4.999	3.426	3.116	3.117	54.316
54.990	18.424	15.343	9.192	5.025	3.398	3.086	3.093	55.767
56.430	18.830	15.735	9.395	5.055	3.373	3.059	3.071	57.213

MACH NO = 25.00 CONE ANGLE = 5.00 ANGLE OF ATTACK = 3.00

		P /	P FREE-S	TREAM AT	PLANE	ANGLES		
L/RN	٥ <sub>&gt;</sub>	30.	60.	90.	120.	150.	130 .	S/RN
57.510	19.110	16.022	9.551	5.080	3.355	3.039	3.055	58.297
58.954	19.447	16.394	9.763	5.117	3.332	3.014	3.037	59.747
60.410	19.735	16.751	9.978	5.157	3.311	2.990	3.019	61.208
61.513	19.915	17.007	10.143	5.189	3.296	2.973	3.007	62.316
63,005	20.101	17.331	10.367	5.236	3.277	2.950	2.991	63.813
64.527	20.217	17.629	10.594	5.287	3.259	2.928	2.977	65.341
65.694	20.257	17.831	10.767	5.328	3.247	2.912	2.967	66.512
67.287	20.246	18.066	11.001	5.387	3.231	2.891	2.954	68.111
68.932	20.167	18.253	11.238	5.451	3.217	2.869.	2.942	69.763
70.637	20.031	18.383	11.479	5.519	3.204	2.848	2.931	71.474
71.951	19.903	18.438	11.659	5.574	3.195	2.833	2.923	72.793
73.746	19.710	18.451	11.899	5.651	3.184	2.812	2.913	74.595
75.601	19.506	18.396	12.137	5.733	3.175	2.791	2.904	76.457
77.038	19.354	18.316	12.314	5.797	3.169	2.776	2.897	77.899
79.020	19.159	18.164	12.545	5.887	3,163	2.755	2.888	79.889
81.092	18.977	17.976	12.771	5.983	3 - 159	2.734	2.880	21.969
82.710	18.853	17.820	12.934	6.057	3.158	2.718	2.874	83.594
64.968	18.705	17.602	13.139	6.162	3.157	2.697	2.866	85.859
87.351	18.580	17.383	13.324	6.272	3.160	2.676	2.858	88.252
89.233	18.503	17.225	13.442	6.358	3.164	2.660	2.852	90.141
91.380	18.421	17.027	13.564	6.477	3.171	2.639	2.843	92.798
94.684	18.361	16.853	13.632	6.600	3-182	2.618	2.834	
96.865	18.330	16.744	13.645	6.695	3.193	2.602	2.827	
99.890	18.302	16.627	13.610 13.525	6.823	3.210	2.582 2.562		100.839
103.067	18.287	16.541 16.495	13.438	6∙953 7•053	3 • 231 3 • 249	2.548		106.534
105.564	18.284	16.455	13.430	7.189		2.531		110.049
109.066 112.792	18.288	16.436	13.155	7 • 1 · 5 · 5 · 5 · 5 · 6 · 6 · 6 · 6 · 6 · 6	3.277 3.310	2.514		113.790
116.775	18.300 18.317	16.434	13.199	7.477	3.349	2.499		117.789
119.954	18.333	16.442	12.905	7.590	3.382	2.488		120.979
124.479	18.353	16.461	12.775	7.742	3.431	2.475		125.522
129.273	18.371	16.487		7.889	3.485	2.464		130.334
132.971	18.383	16.503		7.990	3.528	2.457		134.046
138.042	18.394	16.539	12.511	8.107	3.587	2.450		139.137
143.280	18.402	16.568	12.447	8.198	3.647	2.445		144.395
147.321	18.405	16.587		8.250	3.693	2.442		148.451
152.865	18.408	16.611	12.364	8.298	3.755	2.440		154.017
158.594	18.410	16.629	12.331	8.323	3.818	2.440		159.767
163.015	18.411	16.639	12.313	8.329	3.864	2.441		164.205
169.083	18.414	16.647	12.294	8.324	3.925	2.444		170.296
175.355	18.417	16.650	12.281	8.311	3.984	2.449		176.592
180.199	18.420	16.649	12.273	8.296	4.028	2.453		181.454
186.848	18.424	16.646	12.265	8.273	4.084	2.461		188.129
193.724	18.429	16.642	12.257	8.248	4.138	2.469		195.031
200.835	18.435	16.637	12.250	8.220	4.190	2.480		202.169
				-	-			

MACH NO = 30.00	CONE ANGLE =	5.00	ANGLE OF	ATTACK =	3.00

		P /	P FREE-S	TREAM AT	T PLANE	ANGLES		
L/RN	0.	30.	60.	90•	120.	150.	180.	S/RN
.913	72.935	70.891	65.556	58.804	52.660	48.499	47.052	1.484
1.978	69.689	67.762	62.706	56.314	50.487	46.559	45.191	1.649
1.314	65.108	63.320	58.556	52.810	47.534	44.013	42.790	1.886
1.700	58.093	56.520	52.450	47.394	42.882	39.903	38.87i	2.273
2,185	50.562	49.226	45.749	41.515	37.835	35.469	34.665	2.760
2.776	43.440	42.266	39.268	35.766	32.861	31.088	30.507	3.354
3.481	37.131	36.118	33.518	30.566	28.208	26.849	26.429	4.062
4.305	31.820	30.901	28.570	26.039	24.135	23.122	22.839	4.888
5.248	27.567	26.704	24.538	22.267	20.653	19.884	19.700	5.835
6.306	24.249	23.414	21.344	19.241	17.802	17.162	17.026	6.897
7.472	21.692	20.869	18.848	16.846	15.516	14.950	14.836	8.068
6.737	19.730	18.904	16.900	14.960	13.695	13.166	13.061	9.337
10.089	18.224	17.383	15.371	13.467	12.243	11.732	11.626	10.695
11.518	17.071	16.206	14.164	12.272	11.075	10.577	10.468	12.129
1.3.013	16.194	15.294	13.203	11.307	10.127	9.638	9.528	13.630
14.564	15,538	14.594	12.434	10.519	9.346	8.866	8.757	15.187
16.161	15.059	14.062	11.818	9.869	8.698	8.226	8.118	16.790
17.795	14.726	13.667	11.323	9.329	8.154	7 • 68.9	7.583	18.430
19.458	14.512	13.384	10.928	-8 <b>.877</b>	7.692	7.234	7.131	20.100
21.142	14.402	13.196	10613	8.496	7.299	6.847	6.747	21.790
22.840	14.384	13.088	10.365	8.174	6 • 96 0·	ö•51:3	6.417	23.494
24.544	14.450	13.053	10:-173	7.900	6 • 666	6.225	6.133	25.205
26,247	14.598	13.086	10.030	7.666	6.410	5.974	5.886	26.914
27.521	14.760	13.551	9.952	7.514	6.238	5.807	5.7.21	28.193
29.210	15.041	13.292	9.882	7.337	6.034	5.687	5.526	29.:889
30.885	15.393	13.489	9.849	7.186	5.853	5.430	5.353	31.570
32.541	15.812	13.740	9.848	7.058	5.693	5.273	5.201	33.232
34.175	16.293	14.041	9.878	6.951	5.550	5.134	5.066	34.873
35.785	16.831	14.388	9.,935	6.861	5.422	5.008	4.945	36.489
37.369	17.420	14.776	10.016	6.787	5.307	4.896	4.837	38.079
38.926	18.052	15.203	10:121	6.726	5 • 20 3	4.794	4.740	39.641
40.454	18.723	15,663	10246	6.678	5.110	4.703	4.653	41.176
41.954	19.423	16.153	10.390	6.641	5.026	4.619	4.574	42.681
43.425	20.147	16.668	10.550	6.614	4.949	4.543	4.503	44.158
44.868	20.886	17.203	10725	6.595	4.879	4.474	4.438	45.607
46.284	21.634	17.755	10.914	6.584	4.815	4.410	4.380	47028
47.673	22.384	18.320	11-116	6.580	4.757	4.352	4.326	48.423
49.038	23.127	18.893	11.328	6.583	4.703	4.298	4.277	49:•793
50.380	23.858	19.472	11.550	6.590	4.653	4.248	4.233	51-139
51.701	24.571	20.052	11.782	6.603	4.607	4.201	4.192	52 - 466
53.005	25.259	20.632	12.022	6.621	4.564	4.158	4.154	53.775
54.295	25.915	21.208	12.270	6.643	4.524	4.117	4.119	55.069
55.574	26.534	21.777	12.526	6.669	4.487	4.079	4.087	56.353
56.847	27.106	22.338	12.789	6.699	4.452	4.043	4 = 057	57-631
58.119	27.625	22.888	13.060	6.734	4.419	4.008	4.029	58.908

MA	CH NO =	30.90	CONE	ANGLE	=	5.00	ANGLE	OF	ATT	ACK =	3.00
			~ ~~			A T	PLANE	ANGL	EC		
	_			E-STR	• • •	A T		150		180.	SZRN
L/RN	0.	30.	ŧ	<b>50</b> •	91	0.	120.	150	. •	1000	37.(11
							. 705	3.98	9 7	4.010	59.867
59.074	27.973	23.291	13.4		6.7		-			3.985	61.152
60.355	28.375	23.813	13.5		6.8		4.365	3.9		3.962	62.450
61.647	28.697	24.313	1-3.		6.8		4.336	3.9		3.940	63.765
62.958	28.930	24.785	14.		6.8		4.308	3.89		3.919	65.103
64.291	29.068	25.221	14.		6.9		4.282	3.81			66.471
65.653	29.108	25.612	14.		7.0		4.256	3.8		3.900	67.873
67.049	29.054	25.947	15.		7.0		4.232	3.8		3.881	
68.487	28.914	26.213	15.4		7.1		4,208	3.7		3.864	
69.971	28.702	25.400	15.		7.2		4.186	3.7		3.847	
71.488	28.438	26.499	16.		7.2		4.164	3.7		3.831	72.328
73.043	28.141	20.506	16.		7.3		4.144	3.6		3.816	73.889
74.642	27.828	26.423	16.		7.4		4.126	3.6		3.802	
76.293	27.512	26.261	17.		7.5		4.108	3.6		3.788	
78.004	27.205	26.030		•	7.6		4.093	3.6		3.775	
79.784	26.915	25.747	17.	875	7.7		4.078	3.5		3.762	
81-642	26.650	25.426	18.	215	7.9		4.066	3.5		3.750	
83.589	26.414	25.084	18.	540	8.0	25	4.056	3.5		3.738	
85.638	26.213	24.735	18.	838	8.1	.58	4.048	3.4		3.725	
87-802	26.050			095	8.2	99	4.042	3.4		3.713	
90.090	25.925	•		295	8.4	50	4.039	3.4	21	3.700	
92.458	25.841			421	8.6	808	4.040	3.3		3.687	
94.905	25.790			465	8.7	71	4.044	3.3		3.673	
96-800	25.768			443	8.8	398	4.049	3,3		3.662	
99.418	25.758			351	9.0	174	4.059	3.3			100.365
102.157	25.766			196	9.2	258	4.073	3.2			103.115
105.034	25.785			996	9.4	<b>•</b> 53	4.091	3.2			106.003
108.071	25.812	-		769	9.6	559	4.115	3.2			109.051
111.290	25.844			530	9.8	378	4.144		.89		112.283
114.719	25.879				L 0 . 1	109	4.180	3.1	162		115.725
118:388	25.914	-			10.3	352	4.222	3.1	136		119.408
122.330	25.948			844	10.6	500	4.271		112		123.365
126.582	25.979			653	10.4	844	4.329	3.0	189		127.633
131.183	26.005				11.1	072	4.395		168		132.251
136.027			4		11.7		4.467	3.6	95 O		137.114
141.024			-		11.		4.544	3.0	034		142.129
146.178			= -		11.		4.624	3.	021		147.303
151.497	=	-			11.		4.708	3.1	010		152.642
156.987					11.		4.795	3.	002		158.153
162.655			-		11.		4.886	2.	997		163.843
168.508			-		11.		4.979		994		169.719
174.554					11.		5.074		992		175.788
180.799					11.		5.170		993		2 182.057
187-251					11.		5.265		996		188.533
193.917					11.		5.359		001		8 195.225
					11.		5.452		008		7 202.138
200-804	2.0 . 0 5	L LU 174	- 41			~ • •			-		

MAC	H NO =	3.50	CONE ANGL	E = 6.0	ANGL	E OF ATT	ACK =	3.00
		n (	P FREE-ST	REAM AT	PLANE	ANGLES		
	_			90.	120.	150.	180.	S/RN
L/RN	0.	30•	60.	900	1200	1,000		
	4 677	4 500	1.499	1.371	1.251	1.169	1.141	1.466
.895	1.637	1.599 1.545	1.446	1.320	1.202	1.122	1.094	1.516
• 945	1.582	1.586	1.485	1.356	1.236	1.154	1.125	1.570
.998	1.624	1.514	1.512	1.383	1.263	1.181	1.153	1 . 687
1.115	1.652	1.612	1.512	1.385	1.268	1.188	1.160	1.819
1.247	1.650	1.602	1.504	1.378	1.264	1.186	1.159	1.968
1.395	1.640 1.626	1.589	1.492	1.369	1.257	1.182	1.155	2.135
1.561	1.608	1.571	1.477	1.356	1.248	1.176	1.150	2.321
1.746	1.586	1.550	1.457	1.341	1.237	1.168	1.144	2.528
1.951	1.557	1.523	1.433	1.321	1.222	1.156	1.134	
2.178	1.527	1.493	1.406	1.300	1.206	1.144	1.123	3.007
2.428	1.500	1.467	1.382	1.280	1.192	1.134	1.114	3.282
2.701 2.999	1.476	1.444	1.359	1.260	1.177	1.124	1.106	3,582
3.323	1.455	1.422	1.338	1.240	1.161	1.112	1.096	
3.673	1.435	1.403	1.319	1.222	1.145	1.100	1.086	4.259
4.050	1.419	1.387	1.304	1.207	1.130	1.088	1.076	4.638
4.455	1.406	1.374	1.290	1.195	1.119	1.078	1.067	5.045
4.888	1.396	1.364	1.279	1.186	1.111	1.072	1.061	5.481
5.351	1.388	1.356	1.271	1.178	1.106	1.068	1.058	5.947
5.844	1.384	1.351	1.265	1.172	1.102	1.066	1.057	6.442
6.368	1.381	1.348	1.261	1.168	1.099	1.065	1.057	6.969
6.924	1.381	1.347		1.165	1.097	1.065	1.057	7.528
7.512	1.382	1.347	1.258	1.164	1.097	1.065	1.059	8.119
8.132	1.384	1.349		1.164	1.097	1.067	1.060	8.743
8.787	1.387	1.352		1.166	1.099	1.069	1.063	9.401
9.477	1.392	1.356	1.263	1.168	1.102	1.072	1.066	10.095
10.202	1.396	1.360		1.170	1.105	1.076	1.071	10.824
10.963	1.402	1.365	1.269	1.173	1.108	1.080	1.075	11.589
11.762	1.407	1.370	1.273	1.177	1.112	1.085	1.080	12.393
12.599	1.413	1.375		1.181	1.116	1.039	1.084	
13.476	1.418	1.380		1.184	1.120	1.094	1.089	
14.393	1.423	1.385		1.188	1.124	1.098	1.093	15.038
15.351	1.429	1.390		1.191	1.127	1.102		16.001 17.007
16.352	1.434	1.394		1.195	1.131	1.106	1.102	18.057
17.396	1.438	1.399		1.198	1.134	1.110	1.106	19.153
18.485	1.443	1.403		1.201	1.137	1.113		20.294
19.620	1.447	1.407		1.204	1.140	1.116	1.112	
20.803	1.451	1.411		1.207	1.143	1.119	1.115	
22.034	1.455	1.414		1.210	1.146	1.122 1.124	1.120	
23.315	1.458	1.41?		1.212	1.148	1.124	1.122	
24.648	1.461	1.420		1.215	1.150	1.128	1.124	
26.033	1.464			1.217	1.152	1.130	1.126	
27-473	1.467			1.219	1.154	1.131	1.127	
28.968	1.469			1.221	1.156	1.133	1.128	
30.522	1.472	1.430	1.325	1.223	1.157	1.122	10160	

MAC	H NO =	3.50	CONE AN	IGLE =	6.00 A	NGLE OF	ATTACK =	3.00
		ρ/	P FREE-	STREAM	AT PLA	NE ANGLE	ES	
L/RN	0.	30.	60					S/RN
32.134	1.474	1.432	1.327	1.22	4 1.15	8 1.13	4 1.130	32.877
33.808	1.476	1.434	1.329		6 1.16	0 1.13	5 1.130	34.559
35.544	1.477	1.436	1.330	1.22	7 1.16	1 1.13		36.305
37.345	1.479	1.437	1.332	1.22				
39.212	1.481	1.439	1.333	1.23	0 1.16			
41.148	1-482	1.440	1.334	1.23	1 1.16			
43.155	1.483	1.442	1.336	1.23				
45.234	1.485	1.443	1.337	1.23				
47.388	1.486	1.444	1,338					
49.620	1.487	1.445	1.339					
51.931	1.488	1.446	1.340					52.783
54.325	1.489	1.447	1.340					
56.803	1.490	1.448	1.34					
59.368	1.490	1.448	1.34					
62.023	1.491	1.449	1.34					
64.771	1.492	1.450	1-34					
67.615	1.492	1.450	1.34					
70.558	1-493	1,451	1:-34					
73.603	1.494	1.452	1.34					
76.754	1.494	1.452	1.34					
80.013	1.495	1.453	134					
83.386	1.495	1.453	1.34					
86.874	1.495	1.453	1.34					
90.483	1.496	1.454	1.34					91.547
94.216	1-496	1.454	1.34					95.300 99.184
98.078	1.496	1.454	1.34					
102.073	1.497		1.34					103.201 107.357
106.206	1.497		1:.34					111.656
110.482	1.497		134					116.105
114.906	1-497		1.34° 1.34°					120.708
119.486	1.498	1.456 1.456	1.35					125.470
124.220		1.456	1-35					130.398
129.122	1.498	1.456	1.35			23 1.14	4 1.138	135.498
134.194	1.495	1.456	1.35					140.777
139.443	1,498	1.456	1.35					146.240
144.876	1.498 1.498	1.457	1.35					151.894
150.500	1.498	1.457	1.35		-			157.748
156.321 162.347	1.498	1.457	1:.35				-	163.807
168.587	1.498	1.457	1.35					170.081
175.046	1.498	1.457	135				-	176.576
181.735	1.498	1.457	135					183.302
188.661	1.498	1.457	1.35			-		190.266
195.833	1.498	1.457	1.35					197.477
203.260	1.498	1.457	1.35		-			204.945
2004200	-4-70							

L/RN 0. 30. 60. 90. 120. 150. 180. S/RN  .895 2.747 2.678 2.496 2.265 2.051 1.905 1.854 1.466  1.005 2.696 2.638 2.446 2.215 2.003 1.859 1.809 1.576  1.006 2.701 2.633 2.454 2.226 2.016 1.874 1.824 1.638  1.205 2.657 2.591 2.418 2.198 1.996 1.860 1.812 1.777  1.365 2.2595 2.531 2.362 2.148 1.996 1.864 1.773 1.365 2.595 2.531 2.362 2.148 1.996 1.782 1.739 2.141 2.502 2.595 2.551 2.360 2.297 2.092 1.906 1.782 1.739 2.131  1.799 2.441 2.380 2.224 2.028 1.853 1.736 1.695 2.335 1.799 2.441 2.380 2.224 2.028 1.853 1.736 1.695 2.335 2.265 2.256 2.201 2.058 1.883 1.730 1.685 1.647 2.575 2.265 2.256 2.201 2.058 1.883 1.730 1.685 1.647 2.575 2.265 2.256 2.201 2.058 1.883 1.730 1.635 1.547 2.843 2.563 2.161 2.108 1.971 1.807 1.666 1.577 1.547 3.142 2.894 2.076 2.024 1.890 1.733 1.602 1.521 1.495 3.475 3.475 3.257 1.998 1.998 1.879 1.750 1.602 1.483 1.413 1.391 4.299 4.312 1.842 1.792 1.664 1.521 1.408 1.343 1.224 4.902 4.776 1.796 1.746 1.617 1.475 1.365 1.304 1.227 5.891 5.873 1.730 1.657 1.546 1.403 1.226 1.304 1.227 5.891 5.873 1.730 1.659 1.766 1.617 1.475 1.365 1.304 1.227 5.891 5.873 1.730 1.669 1.746 1.617 1.475 1.365 1.304 1.227 5.388 1.475 1.709 1.657 1.521 1.377 1.269 1.214 1.207 7.069 7.701 1.695 1.664 1.502 1.356 1.208 1.225 6.471 1.664 1.502 1.356 1.208 1.225 6.471 1.664 1.617 1.475 1.365 1.304 1.227 5.388 1.493 1.683 1.625 1.479 1.327 1.228 1.117 1.163 8.383 1.236 1.270 1.254 1.491 1.100 7.706 7.706 1.654 1.602 1.403 1.206 1.204 1.225 6.471 1.207 7.069 1.557 1.521 1.377 1.229 1.214 1.207 7.069 1.701 1.695 1.664 1.502 1.356 1.204 1.155 1.142 1.30 1.3265 1.479 1.327 1.218 1.165 1.164 1.151 1.30 1.3265 1.479 1.502 1.506 1.204 1.155 1.142 1.30 1.3265 1.479 1.506 1.506 1.506 1.506 1.506 1.506 1.506 1.506 1.506 1.506 1.506 1.506 1.506 1.506 1.506 1.506 1.506 1.506 1.403 1.206 1.104 1.106 1.104 1.106 1.104 1.106 1.104 1.106 1.104 1.106 1.104 1.106 1.104 1.106 1.104 1.106 1.104 1.106 1.104 1.106 1.104 1.106 1.104 1.106 1.104 1.106 1.104 1.106 1.104 1.106 1.104 1.106 1.104 1.106 1.104 1.106 1.104 1.106 1.104 1.106 1.	!	MACH	NO =	5.00	CO	NE	ANGLE	=	6.00		ANGLE	OF	ATT	ACK	=	3.00
L/RN 0. 30. 60. 90. 120. 150. 180. S/RN  .895 2.747 2.678 2.496 2.265 2.051 1.905 1.854 1.466 1.005 2.696 2.628 2.446 2.215 2.003 1.859 1.809 1.576 1.006 2.701 2.633 2.454 2.226 2.016 1.74 1.824 1.578 1.205 2.657 2.591 2.418 2.198 1.996 1.860 1.812 1.777 1.365 2.595 2.531 2.362 2.148 1.954 1.824 1.778 1.938 1.549 2.523 2.460 2.297 2.092 1.906 1.782 1.739 2.123 1.759 2.441 2.380 2.224 2.028 1.853 1.736 1.695 2.335 1.998 2.352 2.294 2.144 1.958 1.793 1.685 1.647 2.575 2.265 2.256 2.201 2.058 1.883 1.730 1.631 1.597 2.843 2.5653 2.161 2.108 1.971 1.807 1.666 1.577 1.547 3.142 2.894 2.076 2.024 1.880 1.733 1.602 1.521 1.495 3.475 3.257 1.998 1.948 1.817 1.664 1.540 1.466 1.442 3.841 3.653 1.928 1.879 1.750 1.602 1.483 1.413 1.391 4.239 4.796 1.796 1.746 1.617 1.475 1.365 1.304 1.287 5.388 4.796 1.799 1.657 1.754 1.408 1.313 1.296 1.240 1.225 6.471 6.467 1.799 1.657 1.521 1.377 1.269 1.214 1.200 7.069 9.242 1.684 1.622 1.474 1.319 1.209 1.155 1.142 9.859 1.683 1.625 1.474 1.339 1.231 1.177 1.163 8.384 1.695 1.633 1.488 1.339 1.231 1.177 1.163 8.384 1.603 1.696 1.633 1.488 1.339 1.231 1.177 1.163 8.384 1.603 1.696 1.653 1.487 1.377 1.269 1.214 1.200 7.069 9.242 1.684 1.624 1.474 1.319 1.209 1.155 1.142 9.859 1.0.033 1.689 1.667 1.472 1.336 1.204 1.151 9.101 1.695 1.664 1.521 1.482 1.394 1.180 7.706 1.7774 1.686 1.633 1.488 1.339 1.231 1.177 1.163 8.384 1.603 1.696 1.653 1.473 1.311 1.198 1.144 1.132 11.487 11.727 1.707 1.664 1.677 1.319 1.209 1.155 1.142 9.859 15.051 1.754 1.682 1.592 1.334 1.204 1.151 1.131 1.487 11.727 1.707 1.664 1.579 1.586 1.331 1.198 1.144 1.132 11.487 17.757 1.784 1.682 1.591 1.380 1.228 1.175 1.160 1.149 1.695 1.798 1.798 1.591 1.380 1.228 1.170 1.160 21.282 23.094 1.850 1.759 1.551 1.338 1.204 1.155 1.144 1.132 11.487 17.157 1.707 1.641 1.759 1.585 1.338 1.204 1.155 1.144 1.132 1.4867 17.157 1.784 1.789 1.585 1.591 1.330 1.223 1.1170 1.160 21.282 23.094 1.850 1.759 1.566 1.561 1.339 1.221 1.199 1.191 29.279 23.744 1.871 1.789 1.585 1.389 1.221 1.199 1.191 29.279 25.744 1.871 1.789 1.585 1.59				D /	0 1	E D E	E-STD	EAM	ΑT	PI	ANF	ANG	FS.			
.895			•											16	B G -	S/RN
1.015   2.696   2.528   2.4446   2.215   2.003   1.859   1.809   1.576     1.006   2.701   2.633   2.454   2.226   2.016   1.874   1.824   1.638     1.365   2.595   2.531   2.362   2.148   1.996   1.860   1.812   1.777     1.365   2.595   2.531   2.362   2.148   1.996   1.862   1.773   2.123     1.579   2.441   2.380   2.224   2.028   1.853   1.736   1.695   2.335     1.759   2.441   2.380   2.224   2.028   1.853   1.736   1.695   2.335     1.998   2.352   2.294   2.144   1.958   1.793   1.685   1.647   2.575     2.265   2.256   2.201   2.058   1.883   1.730   1.631   1.597   2.843     2.563   2.161   2.108   1.971   1.807   1.664   1.577   1.547   3.142     2.894   2.076   2.024   1.890   1.773   1.602   1.521   1.495   3.475     3.653   1.928   1.879   1.750   1.602   1.483   1.413   1.391   4.239     4.312   1.842   1.792   1.664   1.521   1.408   1.343   1.324   4.239     4.312   1.842   1.792   1.664   1.521   1.408   1.343   1.324   4.290     4.796   1.796   1.708   1.578   1.336   1.328   1.270   1.254   5.911     5.873   1.730   1.657   1.521   1.477   1.365   1.304   1.225   5.471     6.467   1.709   1.657   1.521   1.377   1.269   1.214   1.200   7.069     7.101   1.695   1.641   1.502   1.356   1.248   1.194   1.180   7.706     7.774   1.686   1.633   1.477   1.326   1.214   1.200   7.069     9.242   1.684   1.624   1.474   1.319   1.218   1.154   1.155     1.686   1.663   1.625   1.479   1.327   1.218   1.144   1.132   11.487     1.177   1.696   1.633   1.473   1.311   1.196   1.142   1.130   13.265     1.086   1.696   1.633   1.473   1.314   1.202   1.148   1.135   10.659     1.696   1.633   1.473   1.314   1.202   1.148   1.135   10.659     1.697   1.691   1.482   1.333   1.996   1.142   1.130   13.265     1.696   1.633   1.473   1.314   1.202   1.148   1.135   11.487     1.696   1.695   1.511   1.336   1.231   1.144   1.132   11.487     1.696   1.695   1.511   1.336   1.204   1.155   1.144   1.130   13.265     1.696   1.695   1.511   1.331   1.196   1.142   1.130   13.265     1.696   1.695   1.	L/R	N	U •	30.		O		,	•				•	- '		
1.015   2.696   2.528   2.4446   2.215   2.003   1.859   1.809   1.576     1.006   2.701   2.633   2.454   2.226   2.016   1.874   1.824   1.638     1.365   2.595   2.531   2.362   2.148   1.996   1.860   1.812   1.777     1.365   2.595   2.531   2.362   2.148   1.996   1.862   1.773   2.123     1.579   2.441   2.380   2.224   2.028   1.853   1.736   1.695   2.335     1.759   2.441   2.380   2.224   2.028   1.853   1.736   1.695   2.335     1.998   2.352   2.294   2.144   1.958   1.793   1.685   1.647   2.575     2.265   2.256   2.201   2.058   1.883   1.730   1.631   1.597   2.843     2.563   2.161   2.108   1.971   1.807   1.664   1.577   1.547   3.142     2.894   2.076   2.024   1.890   1.773   1.602   1.521   1.495   3.475     3.653   1.928   1.879   1.750   1.602   1.483   1.413   1.391   4.239     4.312   1.842   1.792   1.664   1.521   1.408   1.343   1.324   4.239     4.312   1.842   1.792   1.664   1.521   1.408   1.343   1.324   4.290     4.796   1.796   1.708   1.578   1.336   1.328   1.270   1.254   5.911     5.873   1.730   1.657   1.521   1.477   1.365   1.304   1.225   5.471     6.467   1.709   1.657   1.521   1.377   1.269   1.214   1.200   7.069     7.101   1.695   1.641   1.502   1.356   1.248   1.194   1.180   7.706     7.774   1.686   1.633   1.477   1.326   1.214   1.200   7.069     9.242   1.684   1.624   1.474   1.319   1.218   1.154   1.155     1.686   1.663   1.625   1.479   1.327   1.218   1.144   1.132   11.487     1.177   1.696   1.633   1.473   1.311   1.196   1.142   1.130   13.265     1.086   1.696   1.633   1.473   1.314   1.202   1.148   1.135   10.659     1.696   1.633   1.473   1.314   1.202   1.148   1.135   10.659     1.697   1.691   1.482   1.333   1.996   1.142   1.130   13.265     1.696   1.633   1.473   1.314   1.202   1.148   1.135   11.487     1.696   1.695   1.511   1.336   1.231   1.144   1.132   11.487     1.696   1.695   1.511   1.336   1.204   1.155   1.144   1.130   13.265     1.696   1.695   1.511   1.331   1.196   1.142   1.130   13.265     1.696   1.695   1.	••	_	G 70.7	2 674		2 4	96	2.2	65	2.1	151	1.90	15	1.1	854	1.466
1.066																
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1.365																1.777
1.549 2.523 2.460 2.297 2.092 1.906 1.782 1.739 2.123 1.759 2.441 2.380 2.224 2.028 1.953 1.736 1.695 2.335 1.998 2.352 2.294 2.144 1.958 1.793 1.685 1.647 2.575 2.265 2.256 2.201 2.058 1.883 1.730 1.631 1.597 2.843 2.565 2.161 2.108 1.971 1.807 1.666 1.577 1.547 3.142 2.894 2.076 2.024 1.890 1.733 1.605 1.521 1.495 3.475 3.475 3.257 1.998 1.948 1.817 1.664 1.540 1.466 1.442 3.841 3.653 1.928 1.879 1.750 1.602 1.483 1.413 1.391 4.239 4.312 1.842 1.792 1.664 1.521 1.408 1.343 1.324 4.902 4.796 1.796 1.746 1.617 1.475 1.365 1.304 1.287 5.388 5.873 1.730 1.679 1.546 1.403 1.296 5.381 1.779 1.557 1.521 1.377 1.269 1.224 1.200 7.069 7.101 1.695 1.641 1.521 1.377 1.269 1.224 1.200 7.069 7.101 1.695 1.661 1.488 1.339 1.231 1.177 1.163 8.383 8.489 1.683 1.625 1.479 1.336 1.231 1.177 1.163 8.383 8.489 1.683 1.625 1.479 1.336 1.201 1.148 1.132 11.487 11.727 1.707 1.664 1.647 1.474 1.319 1.202 1.148 1.135 10.654 10.033 1.689 1.627 1.474 1.319 1.202 1.148 1.135 10.654 1.770 1.566 1.696 1.633 1.473 1.311 1.196 1.142 1.130 13.265 1.4005 1.799 1.657 1.521 1.377 1.311 1.196 1.142 1.130 13.265 1.4005 1.799 1.651 1.402 1.313 1.196 1.142 1.130 13.265 1.511 1.775 1.669 1.691 1.493 1.313 1.196 1.142 1.130 13.265 1.4005 1.799 1.651 1.402 1.313 1.196 1.142 1.130 13.265 1.511 1.775 1.682 1.502 1.322 1.201 1.147 1.151 1.699 1.691 1.691 1.492 1.331 1.196 1.142 1.130 13.265 1.4005 1.799 1.651 1.400 1.500 1.300 1.200 1.148 1.132 1.4667 1.707 1.6641 1.477 1.311 1.196 1.142 1.130 13.265 1.4005 1.799 1.652 1.502 1.322 1.201 1.147 1.331 1.196 1.142 1.130 13.265 1.4005 1.798 1.791 1.551 1.334 1.202 1.148 1.132 1.4667 1.791 1.651 1.492 1.332 1.203 1.110 1.140 1.141 1.32 1.4667 1.791 1.651 1.551 1.334 1.202 1.148 1.132 1.4667 1.791 1.551 1.550 1.334 1.203 1.110 1.140 1.141 1.32 1.4667 1.791 1.551 1.550 1.334 1.203 1.110 1.140 1.149 1.393 1.203 1.110 1.140 1.141 1.329 1.205 1.304 1.305 1.798 1.799 1.590 1.300 1.208 1.155 1.144 1.330 1.203 1.100 1.149 1.393 1.203 1.100 1.149 1.393 1.203 1.304 1.201 1.300 1.309 1.201 1.300 1.309 1.201 1.300 1.309 1						-										
1.759														1.7	739	2.123
1.998		-												1.1	695	2.335
2.265														1.	647	2.575
2.563														1.	597	2.843
2.894														1.	547	3.142
3.257 1.998 1.948 1.817 1.664 1.540 1.466 1.442 3.841 3.653 1.928 1.8679 1.750 1.602 1.483 1.413 1.391 4.239 4.312 1.842 1.7792 1.6664 1.521 1.408 1.343 1.324 4.902 4.796 1.796 1.796 1.746 1.617 1.475 1.365 1.304 1.287 5.388 5.316 1.759 1.708 1.578 1.436 1.328 1.270 1.254 5.911 5.873 1.730 1.679 1.546 1.403 1.296 1.240 1.225 6.471 6.467 1.709 1.657 1.521 1.337 1.269 1.240 1.225 6.471 1.606 1.635 1.408 1.339 1.231 1.177 1.163 8.489 1.668 1.631 1.488 1.335 1.248 1.194 1.180 7.706 7.774 1.668 1.631 1.488 1.335 1.224 1.104 1.151 9.101 9.242 1.684 1.625 1.479 1.327 1.218 1.164 1.151 9.101 9.242 1.684 1.624 1.474 1.319 1.209 1.155 1.142 9.859 10.033 1.689 1.627 1.472 1.314 1.202 1.148 1.132 11.487 1.777 1.707 1.641 1.477 1.311 1.198 1.144 1.132 11.487 1.265 1.719 1.651 1.482 1.311 1.198 1.144 1.132 11.487 1.265 1.719 1.669 1.669 1.693 1.473 1.311 1.198 1.144 1.132 11.487 1.560 1.759 1.669 1.493 1.318 1.198 1.144 1.132 11.487 1.505 1.754 1.682 1.502 1.322 1.201 1.147 1.130 13.265 1.405 1.759 1.669 1.493 1.318 1.198 1.144 1.132 14.697 1.505 1.754 1.682 1.502 1.322 1.201 1.147 1.135 15.699 17.157 1.784 1.708 1.521 1.334 1.208 1.155 1.144 1.32 14.697 1.505 1.769 1.695 1.511 1.328 1.204 1.151 1.139 16.739 17.157 1.784 1.708 1.521 1.334 1.208 1.155 1.144 1.32 1.4697 1.826 1.786 1.798 1.759 1.550 1.333 1.223 1.100 1.149 18.934 1.208 1.826 1.786 1.758 1.550 1.333 1.223 1.100 1.149 18.934 1.208 1.829 1.838 1.758 1.559 1.356 1.228 1.175 1.165 1.142 2.550 1.282 1.829 1.838 1.768 1.559 1.366 1.233 1.180 1.171 2.3787 2.4399 1.861 1.779 1.577 1.372 1.237 1.205 1.180 1.147 1.300 2.565 1.500 1.386 1.228 1.175 1.160 1.149 1.282 2.515 1.370 1.880 1.798 1.550 1.339 1.223 1.100 1.180 1.171 2.3.787 2.4399 1.861 1.798 1.559 1.386 1.228 1.175 1.185 1.176 2.5.999 1.585 1.380 1.599 1.585 1.380 1.223 1.180 1.171 2.3.787 2.4399 1.861 1.798 1.559 1.380 1.225 1.199 1.180 1.199 1.291 33.049 1.880 1.798 1.559 1.380 1.225 1.199 1.191 33.049 1.880 1.798 1.559 1.380 1.225 1.199 1.180 1.177 2.250 33.699 1.881 1.599 1.585 1.380 1.257 1.300 1.880 1.798								-						1.	495	3.475
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4.312 1.842 1.792 1.664 1.521 1.408 1.343 1.324 4.902 4.796 1.796 1.746 1.617 1.475 1.365 1.304 1.287 5.388 5.316 1.759 1.708 1.578 1.436 1.328 1.270 1.254 5.911 5.873 1.730 1.679 1.546 1.403 1.296 1.240 1.225 6.471 6.467 1.709 1.657 1.521 1.377 1.269 1.214 1.200 7.069 7.101 1.695 1.641 1.502 1.356 1.248 1.194 1.180 7.706 7.774 1.686 1.631 1.488 1.339 1.231 1.177 1.163 8.383 8.489 1.683 1.625 1.479 1.327 1.218 1.164 1.151 9.101 9.242 1.684 1.624 1.474 1.319 1.209 1.155 1.142 9.859 10.033 1.689 1.627 1.472 1.314 1.202 1.148 1.135 10.654 11.777 1.666 1.633 1.473 1.311 1.198 1.144 1.132 11.487 11.777 1.670 1.641 1.477 1.311 1.198 1.144 1.132 11.487 11.777 1.651 1.482 1.313 1.196 1.142 1.130 12.357 12.630 1.719 1.651 1.482 1.313 1.196 1.142 1.130 13.265 14.054 1.739 1.669 1.493 1.318 1.198 1.144 1.132 14.697 15.051 1.754 1.682 1.502 1.322 1.201 1.147 1.135 15.699 16.085 1.769 1.695 1.511 1.328 1.204 1.151 1.139 16.739 17.157 1.784 1.708 1.521 1.334 1.208 1.155 1.144 17.817 18.267 1.798 1.721 1.531 1.340 1.213 1.160 1.149 18.934 19.416 1.812 1.734 1.550 1.353 1.223 1.100 1.147 1.351 19.416 1.812 1.734 1.550 1.336 1.223 1.100 1.149 18.934 19.416 1.812 1.734 1.550 1.366 1.233 1.180 1.170 1.160 21.282 21.829 1.838 1.758 1.559 1.366 1.233 1.180 1.171 23.787 24.399 1.861 1.779 1.568 1.366 1.233 1.180 1.171 23.787 24.399 1.861 1.779 1.568 1.366 1.233 1.180 1.171 23.787 24.399 1.861 1.779 1.558 1.378 1.227 1.237 1.185 1.176 25.099 25.744 1.871 1.789 1.585 1.378 1.247 1.199 1.191 29.279 30.774 1.900 1.817 1.609 1.397 1.257 1.205 1.197 31.509 35.496 1.913 1.829 1.520 1.406 1.264 1.212 1.205 34.631 35.496 1.917 1.823 1.625 1.410 1.267 1.215 1.208 36.257 37.157 1.924 1.840 1.630 1.414 1.277 1.228 1.215 37.928												1.4	13	1.	391	
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5.316 1.759 1.708 1.578 1.436 1.328 1.270 1.254 5.911 5.873 1.730 1.679 1.546 1.403 1.296 1.240 1.225 6.471 6.467 1.709 1.657 1.521 1.377 1.269 1.214 1.200 7.069 7.101 1.695 1.641 1.502 1.356 1.248 1.194 1.180 7.706 7.774 1.686 1.631 1.488 1.339 1.231 1.177 1.163 8.383 8.489 1.683 1.625 1.479 1.327 1.218 1.155 1.142 9.359 9.242 1.684 1.624 1.474 1.319 1.209 1.155 1.142 9.359 10.033 1.689 1.627 1.472 1.314 1.202 1.148 1.135 10.654 10.861 1.696 1.633 1.473 1.311 1.198 1.144 1.132 11.487 11.727 1.707 1.641 1.477 1.311 1.198 1.144 1.132 12.357 12.630 1.719 1.6551 1.482 1.313 1.196 1.142 1.130 12.357 14.054 1.739 1.669 1.493 1.318 1.198 1.144 1.132 14.697 15.051 1.754 1.682 1.502 1.322 1.201 1.147 1.135 15.699 16.085 1.769 1.695 1.511 1.328 1.204 1.151 1.139 16.739 17.157 1.784 1.708 1.521 1.334 1.208 1.155 1.144 17.817 18.267 1.798 1.721 1.531 1.340 1.213 1.160 1.149 18.934 19.416 1.812 1.734 1.540 1.346 1.218 1.165 1.144 17.817 18.267 1.798 1.721 1.531 1.340 1.213 1.160 1.149 18.934 19.416 1.812 1.734 1.550 1.334 1.208 1.155 1.144 17.817 24.399 1.861 1.779 1.568 1.360 1.228 1.175 1.165 22.515 23.094 1.850 1.769 1.568 1.366 1.233 1.180 1.171 23.787 24.399 1.861 1.779 1.577 1.372 1.237 1.185 1.170 1.160 21.282 24.399 1.861 1.779 1.585 1.378 1.224 1.190 1.181 25.452 27.130 1.880 1.769 1.585 1.384 1.227 1.195 1.180 27.845 28.556 1.889 1.806 1.599 1.389 1.251 1.199 1.191 29.279 30.774 1.900 1.817 1.609 1.397 1.257 1.205 1.199 1.191 29.279 30.774 1.900 1.817 1.609 1.397 1.257 1.205 34.631 35.496 1.917 1.823 1.625 1.410 1.267 1.215 1.208 36.257 37.157 1.924 1.840 1.630 1.414 1.270 1.218 1.211 37.928 35.496 1.919 1.835 1.625 1.410 1.267 1.215 1.208 36.257 37.157 1.924 1.840 1.630 1.414 1.270 1.216 1.216 1.216 1.216 1.216 1.216 1.216 1.226 1.221 1.205 34.631										1.	365	1.3	04	1.	287	
5.873       1.730       1.679       1.546       1.403       1.296       1.240       1.225       6.471         6.467       1.709       1.657       1.521       1.377       1.269       1.214       1.200       7.069         7.101       1.695       1.641       1.502       1.356       1.248       1.194       1.180       7.706         7.774       1.686       1.631       1.488       1.339       1.231       1.177       1.163       8.383         8.489       1.683       1.625       1.479       1.327       1.218       1.154       1.151       9.101         9.242       1.684       1.624       1.474       1.311       1.209       1.155       1.142       9.859         10.861       1.696       1.633       1.473       1.311       1.196       1.142       1.33       11.467         11.727       1.707       1.641       1.477       1.311       1.196       1.142       1.30       13.265         14.054       1.739       1.6651       1.482       1.313       1.196       1.142       1.30       13.265         14.054       1.779       1.6551       1.313       1.196       1.142       1.30	-											1.2	70	1.	254	
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7.101 1.695 1.641 1.502 1.356 1.248 1.194 1.180 7.706 7.774 1.686 1.631 1.488 1.339 1.231 1.177 1.163 8.383 8.489 1.683 1.625 1.479 1.327 1.218 1.154 1.151 9.101 9.242 1.684 1.625 1.479 1.327 1.209 1.155 1.142 9.859 1.0033 1.689 1.627 1.472 1.314 1.202 1.148 1.135 10.654 1.727 1.707 1.641 1.477 1.311 1.198 1.144 1.132 11.487 12.653 1.719 1.669 1.482 1.313 1.196 1.142 1.130 12.357 12.6530 1.719 1.669 1.482 1.313 1.196 1.142 1.130 13.265 14.054 1.739 1.669 1.493 1.318 1.198 1.144 1.132 14.697 15.051 1.754 1.682 1.502 1.322 1.201 1.147 1.135 15.699 16.085 1.769 1.695 1.511 1.328 1.204 1.151 1.139 16.739 17.157 1.784 1.708 1.521 1.334 1.208 1.155 1.144 17.817 18.267 1.798 1.721 1.531 1.340 1.213 1.160 1.149 18.934 19.416 1.812 1.734 1.550 1.353 1.223 1.170 1.160 21.282 20.603 1.826 1.746 1.550 1.353 1.223 1.170 1.160 21.282 20.603 1.826 1.746 1.550 1.353 1.223 1.170 1.160 21.282 20.603 1.826 1.746 1.550 1.353 1.223 1.170 1.160 21.282 20.603 1.826 1.769 1.568 1.356 1.233 1.180 1.171 23.787 25.744 1.870 1.769 1.568 1.366 1.233 1.180 1.171 23.787 25.744 1.880 1.769 1.586 1.366 1.233 1.180 1.171 23.787 25.744 1.880 1.798 1.599 1.384 1.247 1.195 1.181 26.452 27.305 1.880 1.798 1.599 1.384 1.247 1.195 1.181 26.452 27.305 1.907 1.823 1.609 1.389 1.251 1.199 1.181 26.452 27.305 1.907 1.823 1.609 1.389 1.267 1.209 1.201 33.049 33.879 1.913 1.829 1.620 1.401 1.267 1.215 1.205 34.631 35.496 1.919 1.835 1.625 1.410 1.267 1.215 1.205 34.631 35.496 1.919 1.835 1.625 1.410 1.267 1.215 1.205 34.631 35.496 1.919 1.835 1.625 1.410 1.267 1.215 1.208 36.257 37.157 1.924 1.840 1.630 1.414 1.270 1.215 1.201 37.928 37.157 1.924 1.840 1.630 1.414 1.270 1.215 1.201 37.928 37.157 1.924 1.840 1.630 1.414 1.270 1.215 1.216 37.928 37.157 1.924 1.840 1.630 1.414 1.270 1.215 1.216 37.928 37.157 1.924 1.840 1.630 1.414 1.270 1.215 1.216 37.928 37.157 1.924 1.840 1.630 1.414 1.270 1.215 1.221 37.928 37.157 1.924 1.840 1.630 1.414 1.270 1.215 1.221 37.928 37.157 1.924 1.840 1.630 1.414 1.270 1.215 1.221 37.928 37.157 1.924 1.840 1.630 1.414 1.270 1										1.	269	1.2	14:			
7.774										1.	248	1.1	94			
8.489										1.	231	1.1	77			•
9.242 1.684 1.624 1.474 1.319 1.209 1.155 1.142 9.859 10.033 1.689 1.627 1.472 1.314 1.202 1.148 1.135 10.654 10.861 1.696 1.633 1.473 1.311 1.198 1.144 1.132 11.487 11.727 1.707 1.641 1.477 1.311 1.196 1.142 1.130 12.357 12.630 1.719 1.651 1.482 1.313 1.196 1.142 1.130 13.265 14.054 1.739 1.669 1.493 1.318 1.198 1.144 1.132 14.697 15.051 1.754 1.682 1.502 1.322 1.201 1.147 1.135 15.699 16.085 1.769 1.695 1.511 1.328 1.204 1.151 1.139 16.739 17.157 1.784 1.708 1.521 1.334 1.208 1.155 1.144 17.817 18.267 1.798 1.721 1.531 1.340 1.213 1.160 1.149 18.934 19.416 1.812 1.734 1.540 1.346 1.218 1.165 1.154 20.088 20.603 1.826 1.746 1.550 1.353 1.223 1.170 1.160 21.282 21.829 1.838 1.758 1.559 1.360 1.228 1.175 1.165 22.515 23.094 1.850 1.769 1.568 1.366 1.233 1.180 1.171 23.787 24.399 1.861 1.779 1.577 1.372 1.237 1.185 1.176 25.099 25.744 1.871 1.789 1.585 1.366 1.233 1.180 1.171 23.787 24.399 1.861 1.779 1.577 1.372 1.237 1.185 1.176 25.099 25.744 1.871 1.789 1.585 1.384 1.242 1.190 1.181 26.452 27.130 1.880 1.798 1.592 1.384 1.247 1.195 1.186 27.845 27.845 28.556 1.889 1.802 1.599 1.389 1.251 1.199 1.181 26.452 27.130 1.880 1.798 1.592 1.384 1.247 1.195 1.186 27.845 28.556 1.889 1.802 1.599 1.389 1.251 1.199 1.191 2.99.279 30.774 1.900 1.817 1.609 1.397 1.257 1.205 1.197 31.509 33.049 33.879 1.913 1.829 1.620 1.406 1.264 1.212 1.205 34.631 35.496 1.919 1.835 1.625 1.410 1.267 1.215 1.208 36.257 37.157 1.924 1.840 1.630 1.414 1.277 1.216 1.216 1.211 37.928								1.3	27	1.	218					
10.033       1.689       1.627       1.472       1.314       1.202       1.148       1.135       10.654         10.861       1.696       1.633       1.473       1.311       1.198       1.144       1.132       11.487         11.727       1.707       1.641       1.477       1.311       1.196       1.142       1.130       12.357         12.630       1.719       1.6651       1.482       1.313       1.196       1.142       1.130       13.265         14.054       1.739       1.6669       1.493       1.318       1.198       1.144       1.132       14.697         15.051       1.754       1.682       1.502       1.322       1.201       1.147       1.135       15.699         16.085       1.769       1.695       1.511       1.322       1.201       1.144       1.135       16.739         17.157       1.784       1.708       1.521       1.334       1.208       1.155       1.144       17.817         18.267       1.798       1.721       1.531       1.340       1.213       1.160       1.149       18.934         19.416       1.812       1.734       1.540       1.353       1.223								1.3	19	1.	209					
10.861       1.696       1.633       1.473       1.311       1.198       1.144       1.132       11.487         11.727       1.707       1.641       1.477       1.311       1.196       1.142       1.130       12.357         12.630       1.719       1.651       1.482       1.313       1.196       1.142       1.130       13.265         14.054       1.739       1.669       1.493       1.318       1.198       1.144       1.132       14.697         15.051       1.754       1.682       1.502       1.322       1.201       1.147       1.135       15.699         16.085       1.769       1.695       1.511       1.328       1.204       1.151       1.139       16.739         17.157       1.784       1.708       1.521       1.334       1.208       1.155       1.144       17.817         18.267       1.798       1.721       1.531       1.340       1.213       1.160       1.149       18.934         19.416       1.812       1.734       1.540       1.356       1.213       1.160       1.149       18.934         20.603       1.826       1.746       1.550       1.353       1.223 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1.3</td><td>14</td><td>1.</td><td>202</td><td></td><td></td><td></td><td></td><td></td></t<>								1.3	14	1.	202					
11.727       1.707       1.641       1.477       1.311       1.196       1.142       1.130       12.357         12.630       1.719       1.651       1.482       1.313       1.196       1.142       1.130       13.265         14.054       1.739       1.669       1.493       1.318       1.198       1.144       1.132       14.697         15.051       1.754       1.682       1.502       1.322       1.201       1.147       1.135       15.699         16.085       1.769       1.695       1.511       1.328       1.204       1.151       1.139       16.739         17.157       1.784       1.708       1.521       1.334       1.208       1.155       1.144       17.817         18.267       1.798       1.721       1.531       1.340       1.213       1.160       1.149       18.934         19.416       1.812       1.734       1.540       1.346       1.218       1.165       1.154       20.088         20.603       1.826       1.758       1.550       1.353       1.223       1.170       1.160       21.282         21.829       1.838       1.758       1.559       1.360       1.223 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1.3</td><td>311</td><td>1.</td><td>198</td><td></td><td></td><td></td><td></td><td></td></t<>								1.3	311	1.	198					
12.630       1.719       1.651       1.482       1.313       1.196       1.142       1.130       13.265         14.054       1.739       1.669       1.493       1.318       1.198       1.144       1.132       14.697         15.051       1.754       1.682       1.502       1.322       1.201       1.147       1.135       15.699         16.085       1.769       1.695       1.511       1.328       1.204       1.151       1.139       16.739         17.157       1.784       1.708       1.521       1.334       1.208       1.155       1.144       17.817         18.267       1.798       1.721       1.531       1.340       1.155       1.144       17.817         18.267       1.798       1.721       1.531       1.340       1.213       1.160       1.144       17.817         18.267       1.798       1.721       1.531       1.340       1.213       1.160       1.144       17.817         18.267       1.812       1.734       1.540       1.346       1.213       1.160       1.149       18.934         19.416       1.828       1.838       1.758       1.550       1.353       1.228 <t< td=""><td></td><td></td><td></td><td></td><td></td><td>1.</td><td>477</td><td>1.3</td><td>311</td><td>1.</td><td>196</td><td></td><td></td><td></td><td></td><td>-</td></t<>						1.	477	1.3	311	1.	196					-
14.054       1.739       1.669       1.493       1.318       1.198       1.144       1.132       14.697         15.051       1.754       1.682       1.502       1.322       1.201       1.147       1.135       15.699         16.085       1.769       1.695       1.511       1.328       1.204       1.151       1.139       16.739         17.157       1.784       1.708       1.521       1.334       1.208       1.155       1.144       17.817         18.267       1.798       1.721       1.531       1.340       1.213       1.160       1.149       18.934         19.416       1.812       1.734       1.540       1.346       1.218       1.165       1.154       20.088         20.603       1.826       1.746       1.550       1.353       1.223       1.170       1.160       21.282         21.829       1.838       1.758       1.559       1.360       1.228       1.175       1.165       22.515         23.094       1.850       1.769       1.568       1.366       1.233       1.180       1.171       23.787         24.399       1.861       1.779       1.577       1.372       1.237 <t< td=""><td></td><td></td><td></td><td></td><td></td><td>1.</td><td>482</td><td>1.3</td><td>313</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>						1.	482	1.3	313							
15.051       1.754       1.682       1.502       1.322       1.201       1.147       1.135       15.699         16.085       1.769       1.695       1.511       1.328       1.204       1.151       1.139       16.739         17.157       1.784       1.708       1.521       1.334       1.208       1.155       1.144       17.817         18.267       1.798       1.721       1.531       1.340       1.213       1.160       1.149       18.934         19.416       1.812       1.734       1.540       1.346       1.218       1.165       1.154       20.088         20.603       1.826       1.746       1.550       1.353       1.223       1.170       1.160       21.282         21.829       1.838       1.758       1.559       1.360       1.228       1.175       1.165       22.515         23.094       1.850       1.769       1.568       1.366       1.233       1.180       1.171       23.787         24.399       1.861       1.779       1.577       1.372       1.237       1.185       1.176       25.099         25.744       1.871       1.789       1.585       1.384       1.242 <t< td=""><td></td><td></td><td></td><td></td><td></td><td>1.</td><td>493</td><td>1.3</td><td>318</td><td>1.</td><td>198</td><td></td><td></td><td></td><td></td><td></td></t<>						1.	493	1.3	318	1.	198					
16.085       1.769       1.695       1.511       1.328       1.204       1.151       1.139       16.739         17.157       1.784       1.708       1.521       1.334       1.208       1.155       1.144       17.817         18.267       1.798       1.721       1.531       1.340       1.213       1.160       1.149       18.934         19.416       1.812       1.734       1.540       1.346       1.218       1.165       1.154       20.088         20.603       1.826       1.746       1.550       1.353       1.223       1.170       1.160       21.282         21.829       1.838       1.758       1.559       1.360       1.228       1.175       1.165       22.515         23.094       1.850       1.769       1.568       1.366       1.233       1.180       1.171       23.787         24.399       1.861       1.779       1.577       1.372       1.237       1.185       1.176       25.099         25.744       1.871       1.789       1.585       1.384       1.247       1.190       1.181       26.452         27.130       1.889       1.806       1.592       1.384       1.247 <t< td=""><td></td><td></td><td></td><td></td><td></td><td>1.</td><td>5 V 2</td><td>1.3</td><td>322</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>						1.	5 V 2	1.3	322							
17.157       1.784       1.708       1.521       1.334       1.208       1.155       1.144       17.817         18.267       1.798       1.721       1.531       1.340       1.213       1.160       1.149       18.934         19.416       1.812       1.734       1.540       1.346       1.218       1.165       1.154       20.088         20.603       1.826       1.746       1.550       1.353       1.223       1.170       1.160       21.282         21.829       1.838       1.758       1.559       1.360       1.228       1.175       1.165       22.515         23.094       1.850       1.769       1.568       1.366       1.233       1.180       1.171       23.787         24.399       1.861       1.779       1.577       1.372       1.237       1.185       1.176       25.099         25.744       1.871       1.789       1.585       1.378       1.242       1.190       1.181       26.452         27.130       1.880       1.798       1.592       1.384       1.247       1.195       1.286       27.845         28.556       1.889       1.615       1.389       1.257       1.205 <t< td=""><td></td><td></td><td></td><td></td><td></td><td>1.</td><td>511</td><td>1.</td><td><b>528</b></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>						1.	511	1.	<b>528</b>							
18.267       1.798       1.721       1.531       1.340       1.213       1.160       1.149       18.934         19.416       1.812       1.734       1.540       1.346       1.218       1.165       1.154       20.088         20.603       1.826       1.746       1.550       1.333       1.223       1.170       1.160       21.282         21.829       1.838       1.758       1.559       1.360       1.228       1.175       1.165       22.515         23.094       1.850       1.769       1.568       1.366       1.233       1.180       1.171       23.787         24.399       1.861       1.779       1.577       1.372       1.237       1.185       1.176       25.099         25.744       1.871       1.789       1.585       1.378       1.242       1.190       1.181       26.452         27.130       1.880       1.798       1.592       1.384       1.247       1.195       1.186       27.845         28.556       1.889       1.806       1.599       1.389       1.251       1.195       1.191       29.279         30.774       1.900       1.817       1.609       1.397       1.257 <t< td=""><td></td><td></td><td>-</td><td>1.708</td><td>3</td><td>1:</td><td>521</td><td>1.3</td><td>334</td><td></td><td></td><td></td><td></td><td></td><td></td><td>•</td></t<>			-	1.708	3	1:	521	1.3	334							•
19.416       1.812       1.734       1.540       1.346       1.218       1.165       1.154       20.088         20.603       1.826       1.746       1.550       1.353       1.223       1.170       1.160       21.282         21.829       1.838       1.758       1.559       1.360       1.228       1.175       1.165       22.515         23.094       1.850       1.769       1.568       1.366       1.233       1.180       1.171       23.787         24.399       1.861       1.779       1.577       1.372       1.237       1.185       1.176       25.099         25.744       1.871       1.789       1.585       1.378       1.242       1.190       1.181       26.452         27.130       1.880       1.798       1.592       1.384       1.247       1.195       1.186       27.845         28.556       1.889       1.806       1.599       1.389       1.251       1.199       1.191       29.279         30.774       1.900       1.817       1.609       1.397       1.257       1.205       1.197       31.509         32.305       1.913       1.829       1.620       1.406       1.264 <t< td=""><td></td><td></td><td></td><td></td><td></td><td>1.</td><td>531</td><td>1.</td><td>340</td><td></td><td></td><td></td><td></td><td></td><td></td><td>_</td></t<>						1.	531	1.	340							_
20.603       1.826       1.746       1.550       1.353       1.223       1.170       1.160       21.262         21.829       1.838       1.758       1.559       1.360       1.228       1.175       1.165       22.515         23.094       1.850       1.769       1.568       1.366       1.233       1.180       1.171       23.787         24.399       1.861       1.779       1.577       1.372       1.237       1.185       1.176       25.099         25.744       1.871       1.789       1.585       1.378       1.242       1.190       1.181       26.452         27.130       1.880       1.798       1.592       1.384       1.247       1.195       1.186       27.845         28.556       1.889       1.806       1.599       1.389       1.251       1.199       1.191       29.279         30.774       1.900       1.817       1.609       1.397       1.257       1.205       1.197       31.509         32.305       1.907       1.823       1.615       1.401       1.261       1.209       1.201       33.049         35.496       1.919       1.835       1.625       1.410       1.267 <t< td=""><td></td><td></td><td></td><td>1.734</td><td>ŧ</td><td>1.</td><td>540</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>				1.734	ŧ	1.	540									
21.829       1.838       1.758       1.559       1.360       1.228       1.175       2.165       22.519         23.094       1.850       1.769       1.568       1.366       1.233       1.180       1.171       23.787         24.399       1.861       1.779       1.577       1.372       1.237       1.185       1.176       25.099         25.744       1.871       1.789       1.585       1.378       1.242       1.190       1.181       26.452         27.130       1.880       1.798       1.592       1.384       1.247       1.195       1.186       27.845         28.556       1.889       1.806       1.599       1.389       1.251       1.199       1.191       29.279         30.774       1.900       1.817       1.609       1.397       1.257       1.205       1.197       31.509         32.305       1.907       1.823       1.615       1.401       1.261       1.209       1.201       33.049         33.879       1.913       1.829       1.625       1.410       1.264       1.212       1.208       36.257         37.157       1.924       1.840       1.630       1.414       1.270 <t< td=""><td></td><td></td><td>1.826</td><td>1.748</td><td>5</td><td>1.</td><td>550</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>			1.826	1.748	5	1.	550									
23.094       1.850       1.769       1.568       1.366       1.233       1.180       1.171       23.687         24.399       1.861       1.779       1.577       1.372       1.237       1.185       1.176       25.099         25.744       1.871       1.789       1.585       1.378       1.242       1.190       1.181       26.452         27.130       1.880       1.798       1.592       1.384       1.247       1.195       1.186       27.845         28.556       1.889       1.806       1.599       1.389       1.251       1.199       1.191       29.279         30.774       1.900       1.817       1.609       1.397       1.257       1.205       1.197       31.509         32.305       1.907       1.823       1.615       1.401       1.261       1.209       1.201       33.049         33.879       1.913       1.829       1.620       1.406       1.264       1.212       1.205       34.631         35.496       1.919       1.835       1.625       1.410       1.267       1.218       1.211       37.928         37.157       1.924       1.840       1.630       1.414       1.270 <t< td=""><td></td><td></td><td></td><td>1.758</td><td>3</td><td>1</td><td>559</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>				1.758	3	1	559									
24.399       1.861       1.779       1.577       1.372       1.237       1.185       1.176       25.099         25.744       1.871       1.789       1.585       1.378       1.242       1.190       1.181       26.452         27.130       1.880       1.798       1.592       1.384       1.247       1.195       1.186       27.845         28.556       1.889       1.806       1.599       1.389       1.251       1.199       1.191       29.279         30.774       1.900       1.817       1.609       1.397       1.257       1.205       1.197       31.509         32.305       1.907       1.823       1.615       1.401       1.261       1.209       1.201       33.049         33.879       1.913       1.829       1.620       1.406       1.264       1.212       1.205       34.631         35.496       1.919       1.835       1.625       1.410       1.267       1.215       1.208       36.257         37.157       1.924       1.840       1.630       1.414       1.270       1.218       1.211       37.928				1.769	3	1:•	568									
25.744       1.871       1.789       1.585       1.378       1.242       1.190       1.181       26.492         27.130       1.880       1.798       1.592       1.384       1.247       1.195       1.186       27.845         28.556       1.889       1.806       1.599       1.389       1.251       1.199       1.191       29.279         30.774       1.900       1.817       1.609       1.397       1.257       1.205       1.197       31.509         32.305       1.907       1.823       1.615       1.401       1.261       1.209       1.201       33.049         33.879       1.913       1.829       1.620       1.406       1.264       1.212       1.205       34.631         35.496       1.919       1.835       1.625       1.410       1.267       1.215       1.208       36.257         37.157       1.924       1.840       1.630       1.414       1.270       1.218       1.211       37.928         37.157       1.924       1.840       1.630       1.414       1.270       1.228       1.214       39.663		-		1.77	€	1	577									
28.556			1.871	1.789	€										-	_
28.556			1.880	1.79	3	1.	592									
30.774     1.900     1.817     1.609     1.397     1.257     1.205     1.197     31.509       32.305     1.907     1.823     1.615     1.401     1.261     1.209     1.201     33.049       33.879     1.913     1.829     1.620     1.406     1.264     1.212     1.205     34.631       35.496     1.919     1.835     1.625     1.410     1.267     1.215     1.208     36.257       37.157     1.924     1.840     1.630     1.414     1.270     1.218     1.211     37.928       37.653				1.830	5.											_
32.305     1.907     1.823     1.615     1.401     1.261     1.209     1.201     33.049       33.879     1.913     1.829     1.620     1.406     1.264     1.212     1.205     34.631       35.496     1.919     1.835     1.625     1.410     1.267     1.215     1.208     36.257       37.157     1.924     1.840     1.630     1.414     1.270     1.218     1.211     37.928       37.653     1.840     1.840     1.630     1.414     1.270     1.228     1.214     39.663			1.900					-								
33.879 1.913 1.829 1.620 1.406 1.264 1.212 1.205 34.631 35.496 1.919 1.835 1.625 1.410 1.267 1.215 1.208 36.257 37.157 1.924 1.840 1.630 1.414 1.270 1.218 1.211 37.928			1.907													
35.496 1.919 1.835 1.625 1.410 1.267 1.215 1.218 36.257 37.157 1.924 1.840 1.630 1.414 1.270 1.218 1.211 37.928				1.82	9											· · · · · · · · · · · · · · · · · · ·
37.157 1.924 1.840 1.630 1.414 1.270 1.218 1.211 37.920		-			5											
					0								-			
38.863 1.929 1.844 1.634 1.417 1.273 1.221 1.214 0.34040	38.8	63	1.929	1.84	4	1.	634	1.	417	1	. 27-3	1 •	<b>441</b>	1.	• < 1	# 3.7 • D.# 3

M	ACH NO =	5.00	CONE	ANGLE	=	6.00		ANGLE	OF	ATTA	CK =	3.00
		P /	P FRE	F-STP	FAM	ΔT	-DI	ANE	ANGL	ES.		
L/RN	0.	30.		0.	90		12		150		180.	S/RN
C / 1/11	•	30.	U	•	., 0	•	16	•	100	•	7004	37711
40.614	1.933	1.849	1.6	3.8	1.42	14	12	76	1.22	3	1.216	41.404
42.411	1.937	1.852	1.6		1.42		1.2		1.22		1.219	
44.255		1.856	1.6		1.42		1.2		1.22		1.221	
46.147		1.859	1.6		1.43		1.2		1.22		1.222	
48.087		1.862	1.6		1.43		1.2		1.23		1.224	
50.076		1.865	1.6		1.43		1.2		1.23		1.225	
53.154		1.869	1.6		1.43		1.2		1.23		1.227	
55.270	1.956	1.871	1.6		1.44		1.2		1.23		1.228	
57.440	1.958	1.873	1.6	63	1.44		1.2		1.23		1.229	
59.664	1.960	1.875	1.6		1.44		1.2		1.23		1.230	
61.943	1.962	1.877	1.6	66	1.44	5	1.2	96	1.23	9	1.231	62.850
64.280	1.963	1.879	1.6	68	1.44	7	1.2	98	1.23	19	1.232	65.200
66.676	1.965	1.880	1.6	70	1.44	8	1.2	99	1.24	• 0	1.232	67.609
69.132	1.966	1.882	1.6		1.45	0	1.3		1.24		1.233	70.979
71.652		1.883	1.6		145		1.3		1.24		1.233	
74.238		1.884			1.45		1.3		1.24		1.234	75.212
76.891		1.886			1.45		13		1.24		1.234	
79.615		1.887	1.6			54			1.24		1.235	
82.413		1.888	1.6		1.45				10-26		1.235	
86.754		1.889	1.6		1.45				1.24		1.236	
89.749		1.889	1.6		1.45				1.24		1.236	
92.828		1.890	1.6		1.45		1.3		1.24		1.236	
95.995		1.891	1.6		1.45		1.3		1.24		1.237	
99.253		1.891	1.6		1.46		1.3		1.24			100.365
102.605		1.892	1.6		1.46		13		1.24			1.03.736
1-06.055		1.892	1.6		1.48		1.3	_	1.24			107.205
109.606		1.892	1.6		1.46		1.3		1.24			110.775
113.262		1.893	1.6		1.48		1.3		1.24			114.451
117.026		1.893	1.6		1.46		1.3		1.24			118.236
120.902 124.093		1.893	1.6		1.48		1.3		1.25			122.134
129.003		1.894 1.894	1.6		1.46		1.3		1.25			126.147
135.400		1.894			1.48		1.3		1.25			130.280
139.824		1.894	1.6		1.46		1.3		1- 25			136.712 141.160
144.381	1.975	1.895	1. • 6		1.46		1.3		1.25			145.742
149.075		1.895	1.6		1.46		1.3		1 29			150.461
153.909		1.895	1.6		1.46		1.3		1.25			155.322
158.888		1.895	1.6		1.46		1.3		1.25			160.329
164.016		1.895	1.6		1.46		1.3		1.25			165.486
169.299		1.895	1.6		1.46		1-3		1.29			170.797
174,741		1.895	1.6		1.46		1.3	-	1.29			176.269
180.346		1.896	1.6		1.46		1.3	-	1.25			181.905
186.120		1.896	1.6		1.46		1.3		1.25			187.711
192.068		1.895	1.6		1.46		1.3	-	1.25			193.691
201.327		1.896	1.6		1.46		1.3	_	1.25			203.001
-								-				

MACU	1 NO = 1.1	nn.n C	ONE ANGLE	= 6.00	) ANGL	E OF ATT	ACK = 3	.00
MACH	1 NU - 41						h	
			FREE-STE		PLANE	ANGLES	4.00	S/RN-
L/RN	ø.	30•	60 "	90•	120 -	150.	180.	37 KH
.895	9.220	8.970	3.319	7.491	6.736	6.222	6.043	1.466
•997	8.946	8.702	8.061	7.250	6.510	6.010	5.836	1.568
	8.715	8.482	7.874	7.106	6.405	5.932	5.767	1.705
1.134	8.188	7.97.0	7.402	6.688	6.043	5.613	5.463	1.952
1.379	7.797	7.590	7.053	6.383	5.780	5.379	5.240	2.141
1.567 1.891	7.175	6.985	6.436	5.891	5.356	5.005	4.883	2.468
2.258	6.538	6.367	5.925	5.388	4.924	4.626	4.525	2.846
2.550	6.140	5.976	5.556	5.059	4.638	4.373	4.285	3.129
3.022	5.585	5.434	5.046	4.593	4.220	3.995	3.922	3.604
3.555	5.089	4.947	4.584	4.170	3.837	3.641	3.580	4.140
3.945	4.798	4.669	4.307	3.913	3.603	3.426	3.371	4.533
4.583	4.422	4.287	3.944	3.570	3.285	3.131	3.086	5.173
5.281	4.115	3.981	3.642	3.279	3.010	2.869	2.831	5.876
5.781	3.945	3.810	3.471	3.113	2.850	2.715	2.679	6.379
6.579	3.734	3.597	3.255	2.899	2.643	2.514	2,480	7.181
7.434	3.570	3.429	3.081	2.724	2.470	2.344	2.311	8.040
8.033	3.48-3	3339	2.985	2.625	2.371	2.247	2.214	8.643
8.974	3.381	3.231	2.866	2.500	2.245	2.120	2.088	9.589
9.964	3.308	3.151	2.772	2.398	2.140	2.015	1.983	10.584
10.649	3.274	3.111	2.722	2.341	2.080	1.954	1.922	11.273
11.712	3.241	3.069	2.663	2.269	2003	1.876	1.843	12.342
12.817	3.228	3.046	2.619	2.211	1.939	1.811	1.778	13.453
13.576	3.230	3,540	2.599	2.179	1.902	1.773	1.740	14.216
14.745	3.245	3.043	2.578	2.140	1.855	1.724	1.691	15.392
15.952	3.274	3.060	2.568	2.111	1.816	1.683	1.650	16.606
16.778	3.301	3.077	2.567	2.095	1.794	1.659	1.626	17.436
18.046	3.350	3.112	2.574	2,078	1.766	1.629	1.595	18.711
19.352	3.409	3.156	2.588	2.067	1.743	1.603	1.569	20.024
20.243	3.453	3.190	2.601	2.063	1.731	1.589	1.555	20.920
21.611	3.524	3.248	2.627	2.061	1.715	1.571	1.536	22.296
23.018	3.602	3.311	2.658	2.064	1.704	1.556	1.521	23.711
23.979	3.656	3.355	2.681	2.068	1.698	1.547	1.513	24.676
25.453	3.740	3.425	2.720	2.077	1 • 691	1.538	1.503	26.159
26.970	3.825	3.498	2.763	2.089	1.687	1.530	1.496	27.684
28.004	3.882	3.547	2,793	2.098	1.686	1.526	1.492	28.724
29.592	3.966	3.621	2.840	2.115	1.686	1.522	1.489	30.321
31.223	4.047	3.694	2.888	2.134	1.687	1.520	1.487	31.961
32.334	4.099	3.741	2.921	2-147	1.689	1.520	1.487	33.078
34.037	4.174	3.810	2.971	2.169	1.693	1.520	1.488	34.790 36.545
35.782	4.244	3.875	3.020	2.192	1.697	1.521	1.490	37.738
36.969	4.288	3.916	3.052	2.208	1.701	1.523	1.493	39.564
38.784	4.349	3.975	3.099	2.232	1-708	1.526	1.497	41.431
40.642	4.405	4.029	3.144	2.257	1.715	1.529	1.502	42.700
41.903	4.440	4.063	3.173	2.274	1.721	1.532	1.506	44,639
43.832	4.488	4.110	3,214	2.299	1.729	1.536	1.51.2	op.op.g (J=J)

1	MACH NO =	10.00	CONE	ANGLE	=	6.00	)	ANGLE	OF	ATTA	CK =	3.00
		D .	n ED	EE-STR	CAM	A T	D1	ANE	ANGL	EC		
L/RN	0.										4.00	0.40%
LZKI		30.		60.	90	J. •	12	.0	150	•	180.	S/RN
45.808	4.532	4.154	3.	253	2.32	25	1.7	38	1.54	1	1.519	46.626
47.836	4.571	4.194	3.		2.35		1.7		1.54		1.526	48.665
49.221	4.594	4.219	3.	312	2.36	56	1.7	55	1.54	9	1.530	50.058
51.356	4.626	4.254	3.	345	2.39	91	1.7		1.55		1.538	52.205
53.570	4.652	4.285	3.	375	2.41	L4	1.7	76	1.56		1.545	54.430
55.098	4.667	4.304	3.	395	2.43	30	1.7	84	1.56		1.550	55.965
57.463	4.684	4.330	3.	422	2.45	52	1.7	96	1.56	9	1.558	58.345
59.887	4.695	4.352	3.	448	2.47	74	1.8	0.8	1.57	'5	1.565	60.783
61.539	4.698	4.363	3.	464	2.48	38	1.8	15	1.57	'9	1.570	62.439
64.057	4.697	4.377	3.	486	2.50	17	1.8	28	1.58	4	1.576	64.976
66.647	4.692	4.384	3.	506	2.52	25	1.8	41	1.59	0	1.583	67.580
68.413	4.687	4.385	3.	519	2.53	37	1.8	49	1.59	3	1.587	69.356
71.125	4.680	4.384	3.	536	2.55	53	1.8	61	1.59	9	1.592	72.083
73.918	4.674	4.379	3.	551	2.56	57	1 8	73	1.60	4	1.598	74.891
75.826	4.671	4.374	3.	561	2.57	77	1.8	80	1.60	8	1.601	76.809
78.762	4.667	4.368	3.	573	2.58	39	1.8	92	1.61	.4	1.606	79.761
81.79	4.664	4.363	3.	584	2.60	11	19	0 3	1.61	9	1.610	82.807
83.863	4.662	4.360	3.	590	2.60	18	1.9	1-0	1.62	3	1.613	84.891
87.056		4.357	3.	598	2.61	18	1.9	20	1.62	8	1.616	88.101
90.354	4.655	4.355	3.	603	2.62	27	1.9	30	1.63	3	1.619	91.417
92.613	4.653	4.353	3.	604	2.63	32	1.9	36	1.63	7	1.622	93.688
96.099	4.650	4.352	3.	605	2.64	+0	1.9	45	164	2	1.624	
99.694	4.647	4.350	3.	605	2.64	+7	1.9	53-	1.64	7	1.627	100.809
102.161	4.645	4.349	3.	604	2.65	52	1.9	58	1.65	0	1.629	103.289
105.965	4.643	4.347	3.	603	2.65	59	1.9	65	1.65	5	1.631	107.114
109.897	4.640	4.344	3.	602	2.68	56	1.9	72	1.66	0	1.633	111.068
112.592	4.639	4.343	3.	601	2.67	70	1.9	76	1.66	3	1.634	113.778
116.748	4.638	4.341	3.	600	2.67	78	1.9	82	1.66	8	1.636	117.956
121.043	4.637	4.338	3.	598	2.68	35	1.9		1.67	'2	1.638	122.275
123.986		4.337	3.	597	2.69	90	1.9	91	1.67		1.639	125.235
128.524				596	2.69	38	1.9	96	1.67	'9	1.640	129.798
133.214	4.637	4.333	3.	594	2.7.0		2.0		1.68	3	1.642	134.514
136.428	4.637	4.332	3.	593	2.70	18	2.0	0.2	1.68	15	1.642	137.745
141.383		4.331	3.	591	2.71	L4.	2.0	06	1.68			142.727
146.504	4.638	4.330	3.	588	2.71	L9	2.0	0.9	1.69	3	1.645	147.876
150.01	4.639	4.330	3.	587	2.72	21	2.0	10	1.69	95	1.646	151.405
155.42	4.639	4.329	3.	585	2.78	25-	2.0	13	1.69	8	1.647	156.844
161.01	4 4.640	4.329	3.	583	2.72	27	2 . 0	15	1.70			162.466
164.84	4.640	4.329	3.	581	2.72	29	2.0	16	1.70			166.319
170.75	L 4.641	4.329	3.	579	2.73		2.0	19-	1.70	16		172.258
176.85		4.329	3.	577·	2.7	32	2.0	121	1.70	8		178.395
181.03	4.643	4.329	3.	575	2.7		.20		1.71			182.601
187.486	5 4.644	4.329	3.	573	2.73	34	2.0	25	1.71			189.085
194.15	4.645	4.329		571	2.73	34-	2.5		1.71			195.785
201.03	7 4.646	4.329		569	2.73		2.0		1.71			202.710

ANGLE OF ATTACK = MACH NO = 15.00 CONE ANGLE = 6.00 P FREE-STREAM AT PLANE ANGLES L/RN 30. 60. 90. 120. 150. 180 . S/RN 0. .895 19,999 19,450 18.018 16.199 14.543 13.417 13.025 1.466 12.904 1.057 19.170 18.649 17.283 15.551 13.971 12.532 1.628 1.204 18.415 17.917 16.615 14.978 13.495 12.499 12.152 1.776 13.974 11.407 1.459 17.137 16.676 15.476 12.621 11.720 2.033 1.871 15.265 14,856 13.802 12.500 11-.348 10.593 10.332 2.447 2.237 13.838 13.471 12.522 11.367 10.366 9.724 9.507 2.815 2.658 12.492 · 12.153 11.287 10.256 9.408 8.877 8.701 3.238 11.274 10.963 9.249 8.495 8.043 7.897 3.718 3.135 10.168 3.862 9.860 9.575 8.850 8.040 7-401 7.035 6.922 4.449 8.982 8.707 7.255 6.276 4.475 8.012 6.679 6.366 5.066 8.251 7.981 7.305 6.582 6.047 5.770 5.695 5.146 5.740 7.209 6.542 6.125 7.478 5.846 5.345 5.095 5.030 6.724 7.026 6.085 6.754 5.399 4.913 4.675 6.918 4.613 7.522 4.259 7.759 6.663 6.385 5.710 5.026 4.548 4.317 8.367 4.242 3.956 6.642 6.374 6.089 5.402 4.716 4.014 9.256 6.085 5.786 5-076 4.380 3.906 3.680 3.622 9.880 10.500 10.648 5.927 5,616 4.883 4.175 3.699 3.473 3,415 11.473 11.846 4.003 3.296 3.238 5,486 4.726 5.812 3.522 12.477 13.217 3.326 3.040 13.856 5.714 5.365 4.564 3.815 3.099 14.273 5.677 5.309 4.471 3.699 3-202 2.974 2.915 14.917 4.400 3.095 5.277 3.602 15.999 15.349 5.667 2.865 2.806 16.443 5.681 5.268 4.348 3.520 3.002 2.771 2.712 17.099 17.925 5.732 5.285 4.303 3.432 2.897 2.663 2.604 18.589 5.792 5.318 4.285 3.379 2.593 2.534 19.723 19.052 2.830 5.870 4.279 20.867 20.190 5.367 3.336 2.771 2.531 2.472 2.704 21.723 5.997 5.453 4.289 3.290 2.460 2.401 22.408 22.881 6.110 5.532 4.307 3.265 2.661 2.414 2.355 23.573 24.046 3.246 2.373 6.236 5.624 4.334 2.623 2.31+ 24.744 5.726 25.216 6.374 4.369 3.233 2.591 2.337 2.278 25.921 26.783 6.575 5.877 4.427 3.223 2.553 2.295 2.236 27.496 27.961 6.735 6.001 4.478 3.221 2.530 2.267 2.209 28.681 29.142 6.902 6.132 4.535 3.223 2.509 2.243 2.185 29.869 6.268 2.491 30.325 7.073 4.598 3.228 2.221 2.164 31.058 7.306 31.904 6.456 4.690 3.241 2-471 2.196 2.139 32.645 2.124 33.088 7.480 6.601 4.763 3.254 2-459 2.179 33.836 7.654 3.269 2:.449 34.273 6.746 4.840 2.165 2.110 35.028 7.879 6.940 2.437 2.148 2.094 35.854 4.947 3.294 36.617 37.040 8.043 7.083 5.030 3.315 2.431 2.137 2.084 37.809 38.226 8.201 7.223 5.115 3.338 2.426 2.127 2.075 39.002 39.414 8.353 7.360 5.200 3.363 2.422 2.119 2.068 40.196 41..001 8.543 7.537 5.315 3.399 2.418 2.109 2.060 41.792 42.196 8.676 7.664 5.402 2.417 2.102 2.055 42.994 3,428 2.097 43.397 8.801 7.786 5.488 3.458 2.416 2.051 44.202 45.014 8.954 7.940 5.602 3.500 2-417 2.091 2.047 45.827 46.240 9.057 8.049 5.686 3.534 2.419 2.087 2.046 47.061

	MACH NO =	15.00	CONE	ANGLE	=	6.00	)	ANGLE	0F	ATT	ACK =	3.00
		P /	P-FRE	F-STD	FAM	AT	DI	ANE	ANGL	50		
L/R	N 0.	30.		0.	90		12		4NGL		4.00	0.40.11
<b>-</b>		004	•	•	,	•	16	•	150	<i>i</i> •	180.	S/RN
47.48	4 9.149	8.153	5.7	70	3.56	9	2.4	21	2.08	3 4	2.044	48.311
48.74	7 9.230	8.250	5 . 8		3.60		2.4		2.06		2.044	
50.47		8.369	5.90		3.65		2.4		2.07		2.044	
51.80		8.449	6.0		3.69		2.4		2.07		2.045	
53.16		8.520	6.13		3.73		2.4		2.07		2.046	54.023
55.04		8.599	6.2:	17	3.79	0	2.4		2.07		2.049	
56.51		8.645	6.29	91	3.83	3	2.4		2.07		2.051	57.388
58.02		8.676	6.36	52	3.87	7	2.4		2.07		2.055	58.913
59.60		8,693	6.43		3.92		2.4		2.07		2.058	60.496
61.80		8,692	6.5		3.98		2.4	92	2.07	<b>'</b> 3	2.064	62.706
63.52		8.675	6.58		4.03		2.5		2.07		2.068	64.438
65.31		8.548	6.63		4.07		2.5		2.07	4	2.073	66.240
67.82		8.601	6.70		4.13		2.5		2.07		2.08.0	68.763
69.80		8.562	6.75		4.10		2.5		2.07		2.086	70.755
71.88		8.524	6.79		4.22		2.5		2.08		2.391	72.843
7.4.86		8.488	6.82		4.27		2.5		2.08		2.097	75.034
77.14		8.445	6.84		4.33		2.6		2.08		2.106	78.135
7-9.60		8.417	6.85		4.37		2 - 6		2.09		2.112	80,606
82.19		8.393	6.84		4.41		2.67		2.09		2.118	83.216
84.90		8.373	6.83		4.45		2.69		2.10		2.124	85.940
88.64 91.55		8.353	6.80		4.50		2.73		2.10		2.131	89.702
94.55		8.340 8.330	-6.78		4.54		2.75		2.11		2.136	
98.68		8.319	6.78	-	4.57		2.78		2.11		2.140	
101.88		8.313	6.73		4.61		2.83		2.12		2.146	
105.18		8.308	6.78 6.78	-	4.64		2.84		2.13			103.014
108.58		8.305	6.68		4.67 4.70		2.36		2.14			106.332
113.26		8.304	-6.66		1.73		2.89		2.15		2.156	109.746
116.89		8.305	6.65		4.75		2 - 94		2.16 2.17		2.160	114.453
120.62		8.306	6.64		÷.76		2 . 96		2.18			118,103
125.77		8.309	6.63		+.77		2.98		2.19			121.857 127.032
129.76		8.310	6.62		.78		3.00		2.20			131.043
133.86		8.312	5.61		+.78		3.02		2.21			135.169
138.087		8.313	6.60		+.78		3.03		2.22			139,414
143.904		8.315	6.60		+.78		3.05		2.23			145.263
148.413	9.030	8.315	6.59		.78		3.07		2.24			149.796
153.051		8.316	6.59		.77		3.08		2.25			154.460
159.440	9.036	8.317	6.58		+.77		3.10		2.27			160.887
164.399		8.317	6.58		77		3.11		2.28			165.870
169.497		8.318	6.57		.76		3.12		2.29			170.996
174.743		8.318	6.57		.76		3.13		2.30			176.271
181.973		8.319	6.57	1 4	.75		3.15		.31			183.541
187.580		8.329	-5.56	-	75		316		. 32			189.179
193.348		8.320	6.56		·• 74		3.17	<b>'</b> 5 2	.32			194.979
201.301	9.050	8.321	6.56	2 4	• 73	7	3.18	37 2	2.33			202.976

# NSHC/HOL/YR 75-45

MACH NO = 20.00	CONE ANGLE =	6.00	ANGLE OF	ATTACK =	3.00

P / P FREE-STREAM AT PLANE ANGLES		
L/RN 0. 30. 60. 90. 120. 150.	186.	SZRN
.895 35.089 34.120 31.595 28.389 25.472 23.491	22.801	1.466
1.055 33.592 32.675 30.269 27.222 24.443 22.566	21.912	1.627
1.281 31.502 30.646 28.411 25.607 23.074 21.380	20.791	1.854
1.648 28.290 27.527 25.554 23.098 20.903 19.450	18.946	2.223
2.099 24.921 24.248 22.526 20.418 18.574 17.381	16.972	2.676
2.497 22.436 21.831 20.280 18.431 16.861 15.876	15.548	3.076
3.114 19.497 18.958 17.581 15.986 14.677 13.892	13.639	3.697
3.832 16.968 16.478 15.231 13.837 12.736 12.105	11.910	4.418
4.651 14.922 14.456 13.284 12.014 11.059 10.550	10.406	5.242
5.329 13.681 13.224 12.084 10.874 9.986 9.532	9.411	5.924
6.313 12.364 11.909 10.788 9.625 8.796 8.386	8.280	6.913
7.381 11.363 10.902 9.779 8.639 7.842 7.457	7.360	7.987
8.522 10.608 10.135 8.996 7.861 7.079 6.707	6.613	9.134
9.420 10.172 9.685 8.524 7.385 6.610 6.241	6.148	10.037
10.665 9.729 9.219 8.019 6.865 6.091 5.725	5.631	11.290
11.957 9.416 8.877 7.627 6.447 5.669 5.305	5.211	12.589
13.288 9.208 8.634 7.323 6.109 5.322 4.959	4.865	13.927
14.306 9.110 8.506 7.143 5.898 5.102 4.738	4.644	14.950
15.685 9.045 8.397 6.956 5.663 4.852 4.486 17.084 9.043 8.347 6.819 5.472 4.641 4.274	4.393	16.338
	4.180	17.744
	4.000	19.163
The state of the s	3.846	20.590
	3.745	21.662 23.091
22.402 9.482 8.556 6.627 5.022 4.099 3.719 23.819 9.702 8.699 6.639 4.952 4.000 3.617	3.627 3.525	24.516
25.227 9.959 8.873 6.673 4.898 3.915 3.527	3.436	25.932
26.276 10.175 9.023 6.711 4.867 3.858 3.467	3.430 3.377	26.987
27.664 10.489 9.247 6.777 4.835 3.792 3.397	3.307	28.382
29.037 10:830 9.495 6.859 4.813 3.734 3.334	3.246	29.763
30.394 11.193 9.764 6.956 4.801 3.684 3.279	3.192	31.127
31.401 11.476 9.977 7.038 4.797 3.651 3.242	3.156	32.140
32.729 11.864 10.274 7.157 4.798 3.612 3.197	3.112	33.475
34.040 12.258 10.582 7.288 4.806 3.577 3.157	3.074	
35.334 12.655 10.898 7.427 4.820 3.547 3.122	3.040	36.095
36.295 12.950 11.138 7.538 4.834 3.528 3.098	3.017	-
37.563 13.339 11.460 7.691 4.857 3.504 3.068	2.989	38.336
38.819 13.717 11.780 7.851 4.884 3.484 3.042	2.964	39.598
40.063 14.081 12.098 8.016 4.915 3.467 3.018	2.942	40.849
41.299 14.427 12.409 8.185 4.950 3.452 2.996	2.923	42.092
42.222 14.674 12.638 8.315 4.978 3.442 2.982	2.910	43.021
43.452 14.983 12.936 8.490 5.019 3.430 2.963	2.894	44.257
44.682 15.267 13.222 8.668 5.063 3.421 2.947	2.879	45.494
45.918 15.520 13.497 8.849 5.111 3.413 2.932	2.867	46.737
46.852 15.690 13.693 8.986 5.148 3.407 2.921	2.858	
	6.000	47.676

L/RN 0. 30. 60. 90. 120. 150. 189. S/RN  49.389 16.037 14.170 9.355 5.258 3.398 2.896 2.893 51.537  51.690 16.201 14.515 9.681 5.365 3.394 2.876 2.827 52.541  53.053 16.233 14.674 9.867 5.432 3.393 2.866 2.821 53.391  54.459 16.222 14.798 10.054 5.503 3.394 2.876 2.827 52.541  55.914 16.172 14.884 10.239 5.578 3.396 2.848 2.813 56.787  57.042 16.115 14.922 10.376 5.637 3.399 2.842 2.811 55.915  58.991 16.018 14.935 10.555 5.719 3.403 2.834 2.810 59.479  60.194 15.908 14.938 10.729 5.804 3.410 2.827 2.810 59.479  61.860 15.792 14.846 10.895 5.894 3.418 2.820 2.809 62.766  63.598 15.675 14.756 11.050 5.987 3.428 2.813 2.811 64.516  64.954 15.496 14.555 11.158 6.059 3.452 2.813 2.811 64.576  64.954 15.496 14.4531 11.397 6.262 3.467 2.795 2.816 69.776  68.831 15.392 14.431 11.397 6.262 3.467 2.795 2.816 69.776  68.831 15.392 14.431 11.397 6.262 3.467 2.795 2.826 73.563  74.934 15.202 14.111 11.584 6.553 3.508 2.785 2.826 73.563  77.989 15.127 13.947 11.92 6.451 3.503 2.785 2.826 73.563  77.989 15.127 13.947 11.92 6.451 3.503 2.785 2.826 73.563  77.989 15.127 13.947 11.92 6.451 3.503 2.785 2.826 73.563  77.839 15.136 14.020 11.533 6.676 3.557 2.775 2.837 78.381  77.840 15.093 13.858 11.367 6.991 3.557 2.775 2.837 78.381  97.314 15.009 13.808 11.109 7.219 3.751 2.765 2.866 94.742  97.314 15.009 13.808 11.124 7.406 3.849 2.768 2.871 98.912  97.314 15.009 13.801 11.124 7.406 3.849 2.768 2.871 98.912  97.314 15.009 13.801 11.124 7.406 3.849 2.768 2.871 19.171  112.808 15.139 13.881 10.835 7.663 4.092 2.779 2.878 10.171  112.808 15.139 13.881 10.835 7.663 4.092 2.779 2.878 10.171  112.808 15.177 13.886 10.756 7.662 4.352 8.979 2.877 14.8193  117.296 15.117 13.886 10.756 7.662 4.352 8.979 2.877 14.2205  110.576 15.117 13.898 10.736 7.662 4.495 2.907 2.876 11.0.710  112.808 15.139 13.881 10.835 7.663 4.092 2.779 2.878 10.1710  112.808 15.139 13.880 10.764 7.662 4.495 2.907 2.876 11.3.181  110.576 15.117 13.886 10.735 7.663 4.192 2.779 2.879 11.3.995  117.296 15.117 13.889 10.736 7.662 4.495 2.907 2.877 14.2205  110.576 15.		MACH	NO =	20.00	CONE	ANGLE	=	6.00	<b>)</b> i	ANGLE	OF	ATTA	CK =	3.00
L/RN				p /	D F01	FE-ST0	EAM	ΛŤ	ÐΙ	ANE /	NCI	E C		
49.389 16.037 14.170 9.355 5.258 3.398 2.896 2.839 50.226 50.692 16.146 14.377 9.541 5.318 3.395 2.884 2.832 51.537 51.690 16.201 14.515 9.681 5.365 3.394 2.876 2.827 52.541 53.053 16.233 14.674 9.867 5.432 3.393 2.866 2.827 52.541 53.053 16.233 14.674 9.867 5.432 3.393 2.866 2.821 53.914 54.459 16.222 14.798 10.054 5.503 3.394 2.857 2.817 55.324 55.914 16.172 14.884 10.239 5.578 3.396 2.848 2.833 56.787 57.042 16.115 14.922 10.376 5.637 3.399 2.842 2.811 57.921 58.591 16.018 14.935 10.555 5.719 3.403 2.834 2.810 59.479 61.986 15.996 14.998 10.729 5.804 3.418 2.827 2.819 61.091 61.660 15.792 14.884 10.895 5.894 3.418 2.820 2.809 62.766 63.598 15.675 14.756 11.050 5.987 3.428 2.803 2.812 65.877 66.842 15.486 14.556 11.288 6.059 3.436 2.808 2.812 65.877 66.842 15.486 14.556 11.288 6.059 3.456 2.808 2.812 65.877 70.935 15.311 14.307 11.479 6.262 3.467 2.795 2.318 69.776 68.831 15.392 14.291 11.520 6.451 3.503 2.785 2.803 71.892 72.597 15.259 14.291 11.520 6.451 3.503 2.785 2.803 71.892 72.597 15.259 14.291 11.520 6.451 3.503 2.785 2.803 73.563 74.934 15.202 14.111 11.544 6.563 3.528 2.780 2.831 75.912 77.389 15.136 14.020 11.533 6.676 3.557 2.775 2.837 78.381 75.912 77.389 15.138 13.888 11.367 6.769 3.590 2.771 2.842 80.975 81.997 15.129 13.997 11.492 6.451 3.572 2.775 2.837 78.381 75.912 77.389 15.138 13.888 11.367 6.790 3.590 2.771 2.842 80.975 81.997 15.109 13.913 11.445 6.790 3.591 2.771 2.842 80.975 81.997 15.109 13.913 11.445 6.790 3.591 2.775 2.837 78.381 75.912 77.389 15.138 13.881 10.367 6.790 3.791 2.765 2.865 83.014 84.839 15.093 13.888 10.366 7.760 3.791 2.765 2.867 83.914 15.309 15.138 13.888 10.366 7.760 3.791 2.765 2.867 80.912 97.314 15.098 13.891 10.865 7.692 4.894 2.768 2.875 102.357 105.316 15.120 13.886 10.910 7.568 4.459 2.799 2.878 106.461 109.541 15.132 13.880 10.764 7.662 4.492 2.788 2.879 131.991 13.595 15.168 13.892 10.724 7.406 3.849 2.768 2.879 131.991 13.595 15.168 13.892 10.724 7.408 4.492 2.788 2.879 131.991 13.595 13.898 10.774 7.662 4.492 2.993 2.875 151.991 13.898 10.774 7.663 4.4	1 /8	N	n.										1-R.O.	SZPN
50.692         16.146         14.377         9.541         5.318         3.395         2.884         2.827         52.541           51.693         16.221         14.574         9.661         5.365         3.394         2.876         2.827         52.541           54.459         16.233         14.674         9.667         5.503         3.394         2.857         2.817         55.324           55.914         16.172         14.884         10.239         5.578         3.399         2.842         2.811         57.921           58.591         16.1018         14.932         10.376         5.637         3.399         2.842         2.811         57.921           60.194         15.908         14.908         10.729         5.804         3.410         2.827         2.809         61.991           61.860         15.792         14.846         10.895         5.894         3.418         2.820         2.809         62.766           63.598         15.675         14.576         11.158         6.059         3.436         2.801         2.815         67.766           64.954         15.866         14.556         11.288         6.159         3.456         2.801         2.816		17	0.	30.	`	J U •	70	•	16		100	-•	1094	SPRIN
50.692         16.146         14.377         9.541         5.318         3.395         2.884         2.827         52.541           51.693         16.221         14.574         9.661         5.365         3.394         2.876         2.827         52.541           54.459         16.233         14.674         9.667         5.503         3.394         2.857         2.817         55.324           55.914         16.172         14.884         10.239         5.578         3.399         2.842         2.811         57.921           58.591         16.1018         14.932         10.376         5.637         3.399         2.842         2.811         57.921           60.194         15.908         14.908         10.729         5.804         3.410         2.827         2.809         61.991           61.860         15.792         14.846         10.895         5.894         3.418         2.820         2.809         62.766           63.598         15.675         14.576         11.158         6.059         3.436         2.801         2.815         67.766           64.954         15.866         14.556         11.288         6.159         3.456         2.801         2.816	49.38	9 18	5.037	14.178	9.	355	5.25	8	3.3	98 2	2.89	6	2.839	50.226
51.6.90         16.201         14.515         9.681         5.365         3.394         2.876         2.827         52.541           53.053         16.233         14.674         9.867         5.432         3.393         2.866         2.821         53.911           55.914         16.172         14.884         10.239         5.578         3.396         2.848         2.813         56.787           57.042         16.115         14.922         10.376         5.637         3.399         2.842         2.811         57.921           58.591         16.018         14.938         10.729         5.804         3.410         2.827         2.809         62.766           61.860         15.792         14.846         10.895         5.894         3.410         2.827         2.809         62.766           63.598         15.675         14.756         11.050         5.987         3.428         2.813         2.811         64.514           66.842         15.9591         14.675         11.158         6.159         3.450         2.801         2.812         67.776           68.831         15.391         14.311         11.397         6.262         3.467         2.795         2.818														-
53.053         16.233         14.674         9.867         5.432         3.393         2.866         2.821         53.911           54.459         16.222         14.798         10.054         5.503         3.394         2.857         2.817         55.324           55.914         16.172         14.884         10.239         5.578         3.399         2.842         2.813         56.787           57.042         16.115         14.935         10.555         5.637         3.399         2.842         2.811         57.921           58.591         16.018         14.908         10.729         5.804         3.410         2.827         2.809         61.091           61.860         15.779         14.846         10.895         5.894         3.418         2.820         2.809         61.091           64.954         15.591         14.675         11.158         6.059         3.436         2.808         2.812         65.877           66.821         15.866         14.556         11.288         6.159         3.436         2.808         2.812         67.776           70.935         15.311         14.307         11.479         6.367         3.467         2.795         2.918														
55.,459         16.172         14.884         10.239         5.578         3.396         2.842         2.813         56.787           57.042         16.112         14.892         10.376         5.637         3.399         2.842         2.811         57.921           58.591         16.018         14.935         10.555         5.719         3.403         2.834         2.810         59.479           60.194         15.998         14.846         10.895         5.894         3.418         2.820         2.809         62.766           63.598         15.675         14.756         11.158         6.059         3.436         2.813         2.811         64.514           66.842         15.591         14.6756         11.288         6.159         3.450         2.801         2.812         65.877           70.935         15.311         14.331         11.397         6.262         3.467         2.795         2.318         69.776           68.831         15.3392         14.4219         11.520         6.451         3.503         2.785         2.826         73.563           77.389         15.158         14.301         11.529         6.451         3.503         2.785         2.826<														
55,914         16,172         14,884         10,239         5,578         3,396         2.842         2.811         57.921           58,591         16,018         14,932         10,376         5,637         3,399         2.842         2.811         57.921           60,194         15,908         14,908         10,729         5,804         3,418         2.827         2.809         61.091           61,861         15,675         14,676         11,050         5,987         3,428         2.813         2.811         64,514           66,842         15,486         14,556         11,158         6,059         3,436         2.808         2.815         67,776           68,831         15,391         14,431         11,307         6,262         3,467         2,795         2.318         69,776           70,935         15,311         14,307         11,479         6,368         3,486         2,790         2,823         71,892           74,934         15,202         14,111         11,524         6,563         3,528         2,780         2,862         73,563           74,934         15,203         14,111         11,524         6,563         3,522         2,775         2,837														
58.591       16.018       14.935       10.555       5.719       3.403       2.834       2.809       69.479         61.860       15.792       14.946       10.895       5.894       3.418       2.820       2.809       62.766         63.598       15.675       14.756       11.050       5.897       3.428       2.813       2.811       64.514         66.842       15.486       14.556       11.288       6.159       3.436       2.801       2.815       67.776         68.831       15.392       14.431       11.397       6.262       3.467       2.795       2.318       69.776         70.935       15.311       14.307       11.479       6.368       3.486       2.790       2.823       71.892         77.389       15.251       14.020       11.520       6.451       3.557       2.775       2.837       78.381         79.969       15.127       13.947       11.492       6.790       3.557       2.775       2.837       78.381         79.369       15.120       13.808       11.367       6.991       3.657       2.766       2.867       83.014         81.997       15.109       13.3081       11.020       7.106 <td></td> <td></td> <td></td> <td>14.884</td> <td>10.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>2.813</td> <td></td>				14.884	10.								2.813	
60.194 15.908 14.908 10.729 5.804 3.410 2.827 2.809 61.091 61.860 15.792 14.646 10.855 5.894 3.418 2.820 2.809 62.766 63.598 15.675 14.756 11.050 5.987 3.428 2.813 2.811 64.514 64.954 15.591 14.675 11.158 6.059 3.436 2.808 2.812 65.877 66.842 15.486 14.556 11.288 6.159 3.450 2.801 2.815 67.776 68.831 15.392 14.431 11.397 6.262 3.467 2.795 2.318 69.776 70.935 15.311 14.307 11.479 6.368 3.486 2.790 2.823 71.892 72.597 15.259 14.219 11.520 6.451 3.503 2.785 2.826 73.563 74.934 15.202 14.111 11.544 6.563 3.528 2.780 2.831 75.912 77.389 15.158 14.020 11.533 6.676 3.557 2.775 2.837 73.381 79.969 15.127 13.947 11.492 6.790 3.590 2.771 2.842 80.975 81.997 15.109 13.903 11.445 6.876 3.557 2.775 2.837 77.381 997 15.109 13.903 11.445 6.876 3.657 2.766 2.852 85.872 87.862 15.086 13.827 11.280 7.106 3.701 2.765 2.863 89.157 87.862 15.086 13.827 11.280 7.106 3.701 2.765 2.863 92.157 87.364 15.089 13.808 11.367 6.991 3.751 2.765 2.863 92.157 93.600 15.089 13.808 11.190 7.219 3.751 2.765 2.863 92.157 93.600 15.089 13.808 11.190 7.219 3.751 2.765 2.863 92.157 93.600 15.089 13.801 11.124 7.302 3.791 2.765 2.863 92.157 93.600 15.089 13.801 11.124 7.302 3.791 2.765 2.863 92.157 93.600 15.089 13.801 11.190 7.506 3.912 2.773 2.875 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 102.357 1	57.04	2 18	5.115	14.922	10.	376	5.63	7	3.3	99 8	2.84	2	2.811	57.921
61.860 15.792 14.846 10.895 5.894 3.418 2.820 2.809 62.766 63.598 15.675 14.756 11.050 5.987 3.428 2.813 2.811 64.516 64.954 15.591 14.675 11.158 6.059 3.450 2.808 2.812 65.877 66.842 15.486 14.556 11.288 6.159 3.450 2.801 2.815 67.776 68.831 15.392 14.431 11.397 6.262 3.467 2.795 2.518 69.776 70.935 15.311 14.307 11.479 6.368 3.467 2.795 2.518 69.776 70.935 15.311 14.307 11.479 6.368 3.467 2.795 2.823 71.892 72.597 15.259 14.219 11.520 6.451 3.503 2.785 2.826 73.563 74.934 15.202 14.111 11.544 6.563 3.528 2.780 2.831 75.912 77.389 15.158 14.020 11.533 6.676 3.557 2.775 2.837 78.381 79.969 15.127 13.947 11.492 6.790 3.590 2.771 2.842 80.975 81.997 15.109 13.903 11.445 6.876 3.617 2.769 2.846 83.014 84.839 15.093 13.858 11.367 6.991 3.657 2.766 2.852 85.872 87.862 15.086 13.827 11.280 7.106 3.701 2.765 2.857 88.912 91.089 15.085 13.801 11.124 7.302 3.791 2.765 2.863 92.157 93.660 15.089 13.801 11.124 7.302 3.791 2.766 2.866 94.742 97.314 15.093 13.801 11.124 7.302 3.791 2.766 2.866 94.742 97.314 15.093 13.801 11.124 7.302 3.791 2.766 2.866 94.742 97.314 15.093 13.801 10.969 7.500 3.912 2.773 2.875 102.357 105.316 15.120 13.816 10.910 7.576 3.976 2.779 2.878 102.357 105.41 15.121 13.836 10.980 7.563 4.092 2.779 2.878 102.357 105.41 15.152 13.830 10.863 7.663 4.092 2.795 2.879 113.995 117.296 15.47 13.886 10.805 7.663 4.092 2.795 2.879 113.995 117.296 15.147 13.886 10.755 7.667 4.221 2.821 2.880 123.179 126.450 15.159 13.880 10.756 7.662 4.321 2.886 2.879 131.751 150.457 15.163 13.886 10.755 7.667 4.223 2.886 2.877 142.205 146.341 15.177 13.898 10.736 7.662 4.343 2.896 2.877 142.205 146.341 15.177 13.898 10.736 7.662 4.343 2.896 2.877 142.205 146.341 15.177 13.898 10.736 7.662 4.343 2.896 2.874 157.825 162.429 15.186 13.899 10.734 7.560 4.955 2.995 2.874 157.825 162.429 15.186 13.899 10.732 7.580 4.580 2.995 2.874 157.825 162.429 15.186 13.899 10.732 7.580 4.580 2.995 2.874 157.825 162.429 15.186 13.893 10.728 7.584 4.663 2.993 2.873 175.030 180.154 15.192 13.893 10.728 7.554 4.663 2.993 2.873 175.030 180.154 15.1	58.59	1 16	0.018	14.935	10.	555	5.71	.9	3.4	03 2	2.83	4	2.810	59.479
63.598	60.19	4 15	908	14.908	10.	729	5.80	4	3.4	10 2	2.82	7	2.809	61.091
64.954 15.591 14.675 11.158 6.059 3.436 2.808 2.812 65.877 66.842 15.486 14.556 11.288 6.159 3.450 2.801 2.815 67.776 68.831 15.392 14.431 11.397 6.262 3.467 2.795 2.318 69.776 70.935 15.311 14.307 11.479 6.368 3.486 2.790 2.823 71.892 72.597 15.259 14.219 11.520 6.451 3.503 2.785 2.826 73.563 74.934 15.202 14.111 11.544 6.563 3.528 2.780 2.831 75.912 77.389 15.158 14.020 11.533 6.676 3.557 2.775 2.837 78.381 79.969 15.127 13.947 11.492 6.790 3.550 2.771 2.842 80.975 81.997 15.109 13.903 11.445 6.876 3.617 2.769 2.846 83.014 84.839 15.093 13.858 11.367 6.991 3.657 2.766 2.852 85.872 87.862 15.086 13.827 11.280 7.106 3.701 2.765 2.857 88.912 91.089 15.085 13.808 11.190 7.219 3.751 2.765 2.857 88.912 91.089 15.085 13.808 11.190 7.219 3.751 2.765 2.863 92.157 93.660 15.089 13.801 11.124 7.302 3.791 2.765 2.866 94.742 97.314 15.098 13.799 11.042 7.406 3.849 2.768 2.871 98.415 101.234 15.108 13.804 10.969 7.500 3.912 2.773 2.875 102.357 105.316 15.120 13.816 10.910 7.576 3.976 2.779 2.878 106.461 109.541 15.132 13.830 10.863 7.634 4.092 2.795 2.879 113.995 117.296 15.154 13.869 10.782 7.662 4.221 2.880 2.879 133.995 117.296 15.154 13.886 10.755 7.667 4.223 2.866 2.879 133.995 127.296 15.157 13.880 10.755 7.667 4.223 2.866 2.879 133.995 117.296 15.154 13.886 10.755 7.667 4.223 2.866 2.879 133.1751 136.486 15.172 13.886 10.755 7.667 4.223 2.866 2.877 136.888 140.864 15.172 13.886 10.774 7.667 4.223 2.866 2.877 136.888 140.864 15.172 13.898 10.732 7.662 4.495 2.993 2.874 157.825 146.389 10.732 7.580 4.495 2.993 2.875 151.971 156.33 13.898 10.732 7.580 4.495 2.993 2.875 151.971 156.33 13.898 10.732 7.580 4.495 2.993 2.874 157.825 162.429 15.186 13.896 10.732 7.550 4.495 2.993 2.874 157.825 162.429 15.186 13.896 10.732 7.550 4.495 2.993 2.874 157.825 162.429 15.186 13.896 10.732 7.550 4.495 2.993 2.874 157.825 162.429 15.186 13.896 10.732 7.550 4.495 2.993 2.874 157.825 162.429 15.186 13.896 10.732 7.550 4.495 2.993 2.874 157.825 162.429 15.186 13.896 10.772 7.550 4.663 2.993 2.873 170.171 173.508 15.192 13.893 10.722 7.	61.86	0 15	5.792	14.846	10.0	895	5.89	14	3.4	18 2	2.82	0	2.809	62.766
66.842 15.486 14.556 11.288 6.159 3.450 2.801 2.815 67.776 68.831 15.392 14.431 11.397 6.262 3.467 2.795 2.318 69.776 70.935 15.311 14.307 11.479 6.368 3.486 2.790 2.823 71.892 72.597 15.259 14.219 11.520 6.451 3.503 2.785 2.826 73.563 74.934 15.202 14.111 11.544 6.563 3.528 2.780 2.831 75.912 77.389 15.158 14.020 11.533 6.676 3.557 2.775 2.837 78.381 79.969 15.127 13.947 11.492 6.790 3.590 2.771 2.842 80.975 81.997 15.109 13.903 11.445 6.876 3.617 2.769 2.846 83.014 84.839 15.093 13.858 11.367 6.991 3.657 2.765 2.852 85.872 91.089 15.085 13.808 11.307 7.106 3.701 2.765 2.857 88.912 91.089 15.085 13.808 11.190 7.219 3.751 2.765 2.857 88.912 91.089 15.089 13.801 11.1280 7.106 3.701 2.765 2.863 92.157 93.660 15.089 13.801 11.124 7.302 3.791 2.766 2.866 94.742 97.314 15.098 13.808 11.190 7.219 3.751 2.765 2.863 92.157 101.234 15.098 13.804 10.969 7.500 3.912 2.773 2.875 102.357 105.316 15.120 13.816 10.910 7.576 3.912 2.779 2.878 106.461 109.541 15.132 13.830 10.863 7.634 4.042 2.788 2.879 110.710 112.808 15.139 13.886 10.863 7.664 4.042 2.788 2.879 110.710 112.808 15.159 13.880 10.863 7.664 4.042 2.788 2.879 110.710 12.808 15.159 13.880 10.764 7.667 4.221 2.821 2.880 123.179 126.750 15.159 13.880 10.764 7.667 4.221 2.821 2.880 123.179 126.750 15.159 13.886 10.755 7.679 4.322 2.874 2.876 128.179 150.576 15.159 13.888 10.754 7.662 4.387 2.866 2.878 136.888 140.864 15.172 13.889 10.774 7.662 4.387 2.866 2.878 136.888 140.864 15.172 13.898 10.774 7.662 4.387 2.866 2.878 136.888 140.864 15.172 13.898 10.774 7.662 4.387 2.866 2.878 136.888 140.864 15.172 13.898 10.774 7.662 4.387 2.866 2.878 136.888 140.864 15.172 13.898 10.774 7.662 4.387 2.866 2.878 136.888 140.864 15.172 13.898 10.774 7.662 4.387 2.899 2.874 167.889 168.576 15.190 13.899 10.722 7.580 4.590 3.011 2.873 175.030 180.154 15.195 13.892 10.728 7.554 4.663 2.993 2.874 163.889 10.773 7.573 4.669 3.011 2.873 175.030 180.154 15.195 13.892 10.728 7.554 4.663 2.993 2.874 163.889 10.734 7.603 4.592 2.993 2.874 163.889 10.734 7.603 4.592 2.993 2.874 163.889 10.72	63.59	8 15	675	14.756	11.	050	5.98	7	3.4	28 7	2.81	.3	2.811	64.514
68.831 15.392 14.431 11.397 6.262 3.467 2.795 2.318 69.776 70.935 15.311 14.307 11.479 6.368 3.486 2.790 2.823 71.892 72.597 15.259 14.219 11.520 6.451 3.503 2.785 2.826 73.563 74.934 15.202 14.111 11.544 6.563 3.528 2.780 2.831 75.912 77.389 15.158 14.020 11.533 6.676 3.557 2.775 2.837 78.381 79.969 15.127 13.947 11.492 6.790 3.590 2.771 2.842 80.975 81.997 15.109 13.903 11.445 6.876 3.617 2.769 2.846 83.014 84.839 15.093 13.858 11.367 6.991 3.657 2.765 2.852 85.872 87.862 15.086 13.827 11.280 7.106 3.701 2.765 2.857 88.912 91.089 15.085 13.808 11.190 7.219 3.751 2.765 2.863 92.157 93.660 15.089 13.801 11.124 7.302 3.791 2.765 2.866 94.742 97.314 15.098 13.799 11.042 7.406 3.849 2.768 2.871 98.415 101.234 15.108 13.804 10.969 7.500 3.912 2.773 2.875 102.357 105.316 15.120 13.816 10.910 7.576 3.976 2.779 2.878 106.461 109.541 15.132 13.830 10.863 7.634 4.042 2.788 2.879 110.710 112.808 15.139 13.841 10.835 7.663 4.092 2.795 2.879 113.995 117.296 15.147 13.856 10.805 7.685 4.157 2.807 2.880 123.179 126.750 15.159 13.880 10.764 7.687 4.283 2.832 2.880 123.179 126.750 15.168 13.892 10.746 7.687 4.283 2.832 2.880 123.179 126.750 15.159 13.880 10.755 7.679 4.329 2.848 2.879 131.751 135.575 15.168 13.892 10.7740 7.642 4.442 2.886 2.877 142.205 146.334 15.193 13.898 10.736 7.620 4.495 2.907 2.876 147.712 150.576 15.177 13.898 10.736 7.620 4.495 2.907 2.876 147.712 150.576 15.177 13.898 10.736 7.620 4.495 2.907 2.876 147.712 150.576 15.179 13.898 10.737 7.534 4.663 2.993 2.875 151.971 156.398 15.183 13.897 10.732 7.580 4.580 2.993 2.875 151.971 156.398 15.183 13.897 10.732 7.580 4.580 2.993 2.874 157.825 162.429 15.186 13.895 10.7740 7.642 4.442 2.886 2.877 142.205 162.429 15.186 13.895 10.7740 7.642 4.442 2.886 2.877 142.205 162.429 15.186 13.895 10.736 7.620 4.495 2.907 2.876 147.712 150.576 15.195 13.898 10.737 7.534 4.663 2.993 2.873 170.171 173.508 15.195 13.895 10.772 7.534 4.660 2.993 2.874 153.889 10.773 7.557 4.690 3.011 2.873 175.030 180.154 15.195 13.895 10.772 7.454 4.750 3.016 2.873 175.030 180.154 15.195	64.95	4 15	5.591	14.675	11.	158	6.05	9	3.4	36 2	2.80	8	2.812	65.877
70.935       15.311       14.307       11.479       6.368       3.486       2.790       2.823       71.892         72.997       15.259       14.219       11.520       6.451       3.503       2.785       2.826       73.563         74.934       15.202       14.111       11.544       6.563       3.528       2.780       2.831       75.912         77.889       15.158       14.020       11.533       6.676       3.557       2.775       2.837       78.381         79.969       15.127       13.947       11.492       6.790       3.590       2.771       2.842       80.975         81.997       15.109       13.803       11.367       6.991       3.657       2.765       2.857       88.912         91.089       15.086       13.808       11.190       7.219       3.751       2.765       2.863       92.157         93.660       15.089       13.801       11.124       7.302       3.791       2.766       2.866       94.742         97.314       15.098       13.804       10.969       7.500       3.912       2.773       2.875       102.357         105.316       15.103       13.846       10.910       7.576 <td>66.84</td> <td>2 15</td> <td>5.486</td> <td>14.556</td> <td></td> <td></td> <td></td> <td></td> <td>3.4</td> <td>50 a</td> <td>2.80</td> <td>1</td> <td></td> <td></td>	66.84	2 15	5.486	14.556					3.4	50 a	2.80	1		
72.597       15.259       14.219       11.520       6.451       3.503       2.785       2.826       73.563         74.934       15.202       14.111       11.544       6.563       3.528       2.780       2.831       75.912         77.389       15.158       14.020       11.533       6.760       3.550       2.775       2.842       80.975         81.997       15.109       13.903       11.445       6.876       3.617       2.769       2.846       83.014         84.839       15.093       13.858       11.367       6.991       3.657       2.765       2.852       85.872         87.862       15.086       13.827       11.280       7.106       3.701       2.765       2.852       85.872         91.889       15.085       13.808       11.120       7.219       3.751       2.765       2.863       92.157         93.660       15.089       13.801       11.124       7.302       3.791       2.766       2.866       94.742         97.314       15.081       13.804       10.997       7.500       3.912       2.773       2.875       102.357         101.234       15.108       13.816       10.90       7.576 <td></td> <td>-</td> <td></td>		-												
74.934       15.202       14.111       11.544       6.563       3.528       2.780       2.831       75.912         77.389       15.158       14.020       11.533       6.676       3.557       2.775       2.837       78.381         79.969       15.127       13.947       11.492       6.790       3.590       2.771       2.842       80.975         81.997       15.109       13.903       11.445       6.876       3.617       2.766       2.852       85.872         87.862       15.086       13.827       11.280       7.106       3.701       2.765       2.857       88.912         91.089       15.089       13.808       11.190       7.219       3.751       2.765       2.866       92.157         93.660       15.089       13.801       11.124       7.302       3.791       2.766       2.871       98.415         101.234       15.108       13.804       10.969       7.500       3.912       2.773       2.871       98.415         101.234       15.103       13.816       10.910       7.576       3.976       2.779       2.878       106.461         109.541       15.132       13.830       10.853       7.634<														
77.389									-	-				
79.969       15.127       13.947       11.492       6.790       3.590       2.771       2.842       80.975         81.997       15.109       13.903       11.445       6.876       3.617       2.769       2.846       83.014         84.839       15.086       13.858       11.367       6.991       3.670       2.765       2.857       88.912         91.089       15.085       13.808       11.190       7.219       3.751       2.765       2.863       92.157         93.660       15.089       13.801       11.124       7.302       3.791       2.766       2.866       94.742         97.314       15.098       13.799       11.042       7.406       3.849       2.768       2.871       98.415         105.316       15.102       13.816       10.910       7.576       3.976       2.779       2.875       106.461         109.541       15.132       13.830       10.863       7.634       4.042       2.788       2.879       110.710         112.808       15.147       13.856       10.805       7.685       4.157       2.807       2.879       113.995         17.296       15.147       13.886       10.782       7.69														
81.997														
84.839       15.093       13.858       11.367       6.991       3.657       2.765       2.852       85.872         87.862       15.086       13.827       11.280       7.106       3.701       2.765       2.857       88.912         91.089       15.085       13.801       11.124       7.302       3.751       2.765       2.863       92.157         93.660       15.089       13.799       11.042       7.406       3.849       2.768       2.871       98.415         101.234       15.108       13.804       10.969       7.500       3.912       2.773       2.875       102.357         105.316       15.120       13.816       10.910       7.576       3.976       2.779       2.878       106.461         109.541       15.132       13.830       10.863       7.634       4.042       2.788       2.879       110.710         117.296       15.147       13.856       10.805       7.685       4.157       2.807       2.880       118.508         21.942       15.154       13.886       10.764       7.687       4.221       2.821       2.880       128.01         130.467       15.163       13.896       10.774       7		_												
87.862       15.086       13.827       11.280       7.106       3.701       2.765       2.857       88.912         91.089       15.085       13.808       11.190       7.219       3.751       2.765       2.863       92.157         93.660       15.089       13.801       11.124       7.302       3.791       2.766       2.866       94.742         97.314       15.098       13.804       10.962       7.406       3.849       2.768       2.871       98.415         101.234       15.108       13.804       10.969       7.500       3.912       2.773       2.875       102.357         105.316       15.120       13.830       10.863       7.634       4.042       2.788       2.879       110.710         12.808       15.132       13.830       10.863       7.663       4.042       2.788       2.879       113.995         117.296       15.147       13.856       10.805       7.665       4.157       2.807       2.880       123.179         126.750       15.154       13.869       10.776       7.667       4.283       2.879       131.751         135.575       15.163       13.896       10.774       7.642														
91.089 15.085 13.808 11.190 7.219 3.751 2.765 2.863 92.157 93.660 15.089 13.801 11.124 7.302 3.791 2.766 2.866 94.742 97.314 15.098 13.799 11.042 7.406 3.849 2.768 2.871 98.415 101.234 15.108 13.804 10.969 7.500 3.912 2.773 2.875 102.357 105.316 15.120 13.816 10.910 7.576 3.976 2.779 2.878 106.461 109.541 15.132 13.830 10.863 7.663 4.042 2.788 2.879 110.710 112.808 15.139 13.841 10.835 7.663 4.092 2.795 2.879 113.995 117.296 15.147 13.856 10.805 7.663 4.092 2.795 2.879 113.995 12.942 15.154 13.869 10.782 7.692 4.221 2.821 2.880 123.179 126.750 15.159 13.880 10.764 7.687 4.283 2.836 2.880 123.179 126.750 15.163 13.886 10.755 7.667 4.283 2.836 2.880 128.014 130.467 15.163 13.886 10.755 7.662 4.387 2.866 2.878 131.751 135.575 15.168 13.892 10.746 7.662 4.387 2.866 2.878 136.888 140.864 15.172 13.898 10.736 7.662 4.387 2.866 2.878 136.888 140.864 15.172 13.898 10.736 7.662 4.495 2.907 2.876 147.712 150.576 15.179 13.898 10.736 7.620 4.495 2.907 2.876 147.712 150.576 15.163 13.897 10.732 7.580 4.580 2.945 2.874 157.825 162.429 15.186 13.896 10.731 7.557 4.623 2.969 2.874 163.889 168.676 15.190 13.895 10.729 7.534 4.663 2.993 2.873 170.171 173.508 15.192 13.893 10.728 7.517 4.690 3.011 2.873 175.030 180.154 15.195 13.893 10.728 7.517 4.690 3.011 2.873 175.030 180.154 15.195 13.893 10.728 7.517 4.690 3.011 2.873 175.030 180.154 15.195 13.890 10.724 7.474 4.750 3.060 2.874 188.634 194.171 15.202 13.890 10.722 7.454 4.774 3.084 2.875 195.806														
93.660 15.089 13.801 11.124 7.302 3.791 2.766 2.866 94.742 97.314 15.098 13.799 11.042 7.406 3.849 2.768 2.871 98.415 101.234 15.108 13.804 10.969 7.500 3.912 2.773 2.875 102.357 105.316 15.120 13.816 10.910 7.576 3.976 2.779 2.878 106.461 109.541 15.132 13.830 10.863 7.634 4.042 2.788 2.879 110.710 112.808 15.139 13.841 10.835 7.663 4.092 2.795 2.879 113.995 117.296 15.147 13.856 10.805 7.685 4.157 2.807 2.880 118.508 121.942 15.154 13.886 10.782 7.692 4.221 2.821 2.880 123.179 126.750 15.159 13.880 10.764 7.687 4.283 2.836 2.879 131.751 135.575 15.163 13.886 10.755 7.679 4.329 2.848 2.879 131.751 135.575 15.163 13.896 10.746 7.662 4.387 2.866 2.878 136.888 140.864 15.172 13.896 10.746 7.662 4.387 2.866 2.878 136.888 140.864 15.172 13.898 10.736 7.662 4.495 2.907 2.876 147.712 150.576 15.179 13.898 10.736 7.620 4.495 2.907 2.876 147.712 150.576 15.179 13.898 10.734 7.603 4.532 2.923 2.875 151.971 156.398 15.183 13.897 10.732 7.580 4.580 2.945 2.874 157.825 162.429 15.166 13.895 10.731 7.557 4.663 2.993 2.874 163.889 16.731 7.5580 4.580 2.993 2.873 170.171 173.508 15.190 13.895 10.729 7.534 4.663 2.993 2.873 170.171 173.508 15.190 13.893 10.728 7.517 4.690 3.011 2.873 175.030 180.154 15.195 13.890 10.724 7.474 4.750 3.084 2.875 195.806														
97.314       15.098       13.799       11.042       7.406       3.849       2.768       2.871       98.415         101.234       15.108       13.804       10.969       7.500       3.912       2.773       2.875       102.357         105.316       15.120       13.816       10.910       7.576       3.976       2.779       2.878       106.461         109.541       15.132       13.830       10.863       7.634       4.042       2.788       2.879       110.710         112.808       15.139       13.841       10.835       7.663       4.092       2.795       2.879       113.995         117.296       15.147       13.856       10.805       7.685       4.157       2.807       2.880       118.508         121.942       15.154       13.869       10.782       7.692       4.221       2.821       2.880       123.179         126.750       15.159       13.880       10.764       7.667       4.283       2.836       2.879       131.751         135.575       15.168       13.892       10.740       7.662       4.387       2.866       2.878       136.888         140.844       15.177       13.898       10.734														
101.234       15.108       13.804       10.969       7.500       3.912       2.773       2.875       102.357         105.316       15.120       13.816       10.910       7.576       3.976       2.779       2.878       106.461         109.541       15.132       13.830       10.863       7.634       4.042       2.788       2.879       110.710         112.808       15.139       13.841       10.835       7.663       4.092       2.795       2.879       113.995         117.296       15.147       13.856       10.805       7.685       4.157       2.807       2.880       118.508         121.942       15.154       13.869       10.782       7.692       4.221       2.821       2.880       123.179         126.750       15.159       13.880       10.764       7.687       4.283       2.836       2.879       131.751         130.467       15.163       13.896       10.7740       7.662       4.387       2.866       2.878       136.888         140.864       15.172       13.898       10.740       7.642       4.442       2.886       2.877       142.205         146.341       15.179       13.898       10.734														
105.316       15.120       13.816       10.910       7.576       3.976       2.779       2.878 106.461         109.541       15.132       13.830       10.863       7.634       4.042       2.788       2.879 110.710         112.808       15.139       13.841       10.835       7.663       4.092       2.795       2.879 113.995         117.296       15.147       13.856       10.805       7.685       4.157       2.807       2.880 118.508         121.942       15.154       13.869       10.782       7.692       4.221       2.821       2.880 123.179         126.750       15.159       13.880       10.764       7.687       4.283       2.836       2.879 131.751         130.467       15.163       13.886       10.755       7.679       4.329       2.848       2.879 131.751         135.575       15.168       13.896       10.740       7.642       4.442       2.886       2.878 136.888         140.864       15.177       13.898       10.734       7.603       4.532       2.907       2.876 147.712         150.576       15.191       13.898       10.734       7.603       4.532       2.923       2.875 151.971         162.429														-
109.541       15.132       13.830       10.863       7.634       4.042       2.788       2.879       110.710         112.808       15.139       13.841       10.835       7.663       4.092       2.795       2.879       113.995         117.296       15.147       13.856       10.805       7.685       4.157       2.807       2.880       118.508         121.942       15.154       13.869       10.764       7.667       4.283       2.836       2.880       123.179         126.750       15.159       13.886       10.755       7.679       4.329       2.848       2.879       131.751         135.575       15.163       13.896       10.746       7.662       4.387       2.866       2.878       136.888         140.864       15.172       13.898       10.736       7.620       4.495       2.907       2.876       147.712         150.576       15.179       13.898       10.734       7.603       4.532       2.923       2.875       151.971         156.398       15.183       13.896       10.732       7.580       4.580       2.945       2.874       157.825         162.429       15.186       13.895       10.729														
112.808       15.139       13.841       10.835       7.663       4.092       2.795       2.879       113.995         117.296       15.147       13.856       10.805       7.685       4.157       2.807       2.880       118.508         121.942       15.154       13.886       10.782       7.692       4.221       2.821       2.880       123.179         126.750       15.159       13.886       10.764       7.687       4.283       2.836       2.880       128.014         130.467       15.163       13.886       10.755       7.679       4.329       2.848       2.879       131.751         135.575       15.168       13.892       10.746       7.662       4.387       2.866       2.878       136.888         140.864       15.172       13.898       10.736       7.620       4.495       2.907       2.876       147.712         150.576       15.179       13.898       10.734       7.603       4.532       2.923       2.875       151.971         156.398       15.183       13.897       10.732       7.580       4.580       2.945       2.874       157.825         162.429       15.186       13.895       10.729		-			-									
117.296       15.147       13.856       10.805       7.685       4.157       2.807       2.880 118.508         121.942       15.154       13.869       10.782       7.692       4.221       2.821       2.880 123.179         126.750       15.159       13.880       10.764       7.687       4.283       2.836       2.880 128.014         130.467       15.163       13.886       10.755       7.679       4.329       2.848       2.879 131.751         135.575       15.168       13.892       10.746       7.662       4.387       2.866       2.878 136.888         140.864       15.172       13.896       10.740       7.642       4.495       2.907       2.876 147.712         150.576       15.179       13.898       10.734       7.603       4.532       2.923       2.875 151.971         156.398       15.183       13.897       10.732       7.580       4.580       2.945       2.874 157.825         162.429       15.166       13.896       10.723       7.557       4.623       2.969       2.874 163.889         168.676       15.190       13.895       10.729       7.534       4.663       2.993       2.873 170.171         173.508														
121.942       15.154       13.869       10.782       7.692       4.221       2.821       2.880       123.179         126.750       15.159       13.880       10.764       7.687       4.283       2.836       2.880       128.014         130.467       15.163       13.886       10.755       7.679       4.329       2.848       2.879       131.751         135.575       15.168       13.892       10.746       7.662       4.387       2.866       2.878       136.888         140.864       15.172       13.896       10.740       7.642       4.442       2.886       2.877       142.205         146.341       15.177       13.898       10.736       7.620       4.495       2.907       2.876       147.712         150.576       15.179       13.898       10.734       7.603       4.532       2.923       2.875       151.971         156.398       15.183       13.897       10.732       7.580       4.580       2.945       2.874       163.889         168.676       15.190       13.893       10.729       7.534       4.663       2.993       2.873       170.171         173.508       15.192       13.893       10.728					_									
126.750       15.159       13.880       10.764       7.687       4.283       2.836       2.880: 128.014         130.467       15.163       13.886       10.755       7.679       4.329       2.848       2.879: 131.751         135.575       15.168       13.892       10.746       7.662       4.387       2.866       2.878: 136.888         140.864       15.172       13.896       10.740       7.642       4.442       2.886       2.877: 142.205         146.341       15.177       13.898       10.736       7.620       4.495       2.907       2.876       147.712         150.576       15.179       13.898       10.734       7.603       4.532       2.923       2.875       151.971         156.398       15.183       13.897       10.732       7.580       4.580       2.945       2.874       157.825         162.429       15.186       13.896       10.731       7.557       4.623       2.969       2.874       163.889         168.676       15.190       13.893       10.728       7.517       4.690       3.011       2.873       170.171         173.508       15.195       13.892       10.726       7.495       4.722       3.036														
130.467       15.163       13.886       10.755       7.679       4.329       2.848       2.879 131.751         135.575       15.168       13.892       10.746       7.662       4.387       2.866       2.878 136.888         140.864       15.172       13.896       10.740       7.642       4.442       2.886       2.877 142.205         146.341       15.177       13.898       10.736       7.620       4.495       2.907       2.876 147.712         150.576       15.179       13.898       10.734       7.603       4.532       2.923       2.875 151.971         156.398       15.183       13.897       10.732       7.580       4.580       2.945       2.874 157.825         162.429       15.186       13.896       10.731       7.557       4.623       2.969       2.874 163.889         168.676       15.190       13.895       10.729       7.534       4.663       2.993       2.873 175.030         180.154       15.195       13.892       10.726       7.495       4.722       3.036       2.873 181.712         187.038       15.199       13.890       10.724       7.474       4.750       3.084       2.875 195.806				-		-				-				
135.575       15.168       13.892       10.746       7.662       4.387       2.866       2.878       136.888         140.864       15.172       13.896       10.740       7.642       4.442       2.886       2.877       142.205         146.341       15.177       13.898       10.736       7.620       4.495       2.907       2.876       147.712         150.576       15.179       13.898       10.734       7.603       4.532       2.923       2.875       151.971         156.398       15.183       13.897       10.732       7.580       4.580       2.945       2.874       157.825         162.429       15.186       13.896       10.731       7.557       4.623       2.969       2.874       163.889         168.676       15.190       13.895       10.729       7.534       4.663       2.993       2.873       170.171         173.508       15.192       13.892       10.728       7.517       4.690       3.011       2.873       181.712         187.038       15.199       13.890       10.724       7.474       4.750       3.084       2.875       195.806		-												
140.864       15.172       13.896       10.740       7.642       4.442       2.886       2.877       142.205         146.341       15.177       13.898       10.736       7.620       4.495       2.907       2.876       147.712         150.576       15.179       13.898       10.734       7.603       4.532       2.923       2.875       151.971         156.398       15.183       13.897       10.732       7.580       4.580       2.945       2.874       157.825         162.429       15.186       13.896       10.731       7.557       4.623       2.969       2.874       163.889         168.676       15.190       13.895       10.729       7.534       4.663       2.993       2.873       170.171         173.508       15.192       13.893       10.728       7.517       4.690       3.011       2.873       175.030         180.154       15.195       13.892       10.726       7.474       4.722       3.036       2.874       188.634         194.171       15.202       13.890       10.722       7.454       4.774       3.084       2.875       195.806														
146.341       15.177       13.898       10.736       7.620       4.495       2.907       2.876       147.712         150.576       15.179       13.898       10.734       7.603       4.532       2.923       2.875       151.971         156.398       15.183       13.897       10.732       7.580       4.580       2.945       2.874       157.825         162.429       15.186       13.896       10.731       7.557       4.623       2.969       2.874       163.889         168.676       15.190       13.895       10.729       7.534       4.663       2.993       2.873       170.171         173.508       15.192       13.893       10.728       7.517       4.690       3.011       2.873       175.030         180.154       15.195       13.892       10.726       7.474       4.722       3.036       2.873       181.712         187.038       15.199       13.890       10.724       7.474       4.750       3.080       2.875       195.806			-											-
150.576       15.179       13.898       10.734       7.603       4.532       2.923       2.875       151.971         156.398       15.183       13.897       10.732       7.580       4.580       2.945       2.874       157.825         162.429       15.186       13.896       10.731       7.557       4.623       2.969       2.874       163.889         168.676       15.190       13.895       10.729       7.534       4.663       2.993       2.873       170.171         173.508       15.192       13.893       10.728       7.517       4.690       3.011       2.873       175.030         180.154       15.195       13.892       10.726       7.495       4.722       3.036       2.873       181.712         187.038       15.199       13.890       10.724       7.474       4.750       3.080       2.875       195.806				-									-	
156.398       15.183       13.897       10.732       7.580       4.580       2.945       2.874       157.825         162.429       15.186       13.896       10.731       7.557       4.623       2.969       2.874       163.889         168.676       15.190       13.895       10.729       7.534       4.663       2.993       2.873       170.171         173.508       15.192       13.893       10.728       7.517       4.690       3.011       2.873       175.030         180.154       15.195       13.892       10.726       7.495       4.722       3.036       2.873       181.712         187.038       15.199       13.890       10.724       7.474       4.750       3.060       2.874       188.634         194.171       15.202       13.890       10.722       7.454       4.774       3.084       2.875       195.806			-											
162.429       15.186       13.896       10.731       7.557       4.623       2.969       2.874 163.889         168.676       15.190       13.895       10.729       7.534       4.663       2.993       2.873 170.171         173.508       15.192       13.893       10.728       7.517       4.690       3.011       2.873 175.030         180.154       15.195       13.892       10.726       7.495       4.722       3.036       2.873 181.712         187.038       15.199       13.890       10.724       7.474       4.750       3.060       2.874 188.634         194.171       15.202       13.890       10.722       7.454       4.774       3.084       2.875 195.806	_	-	-		_									
168.676       15.190       13.895       10.729       7.534       4.663       2.993       2.873       170.171         173.508       15.192       13.893       10.728       7.517       4.690       3.011       2.873       175.030         180.154       15.195       13.892       10.726       7.495       4.722       3.036       2.873       181.712         187.038       15.199       13.890       10.724       7.474       4.750       3.060       2.874       188.634         194.171       15.202       13.890       10.722       7.454       4.774       3.084       2.875       195.806				-							-			
173.508     15.192     13.893     10.728     7.517     4.690     3.011     2.873     175.030       180.154     15.195     13.892     10.726     7.495     4.722     3.036     2.873     181.712       187.038     15.199     13.890     10.724     7.474     4.750     3.060     2.874     188.634       194.171     15.202     13.890     10.722     7.454     4.774     3.084     2.875     195.806										-				
180.154     15.195     13.892     10.726     7.495     4.722     3.036     2.873     181.712       187.038     15.199     13.890     10.724     7.474     4.750     3.060     2.874     188.634       194.171     15.202     13.890     10.722     7.454     4.774     3.084     2.875     195.806	-			-						_				
187.038 15.199 13.890 10.724 7.474 4.750 3.060 2.874 188.634 194.171 15.202 13.890 10.722 7.454 4.774 3.084 2.875 195.806	-	-												
194.171 15.202 13.890 10.722 7.454 4.774 3.084 2.875 195.806			p=											
			-	-										

M	ACH NO =	25.00	CONE	ANGLE	=	6.0	) ANGL	LE OF	ATTACK	=	3.00
		D /	0 505	E-STRI	- A M	AT	PLANE	ANGL	EC		
L/RN	0.	30.		.E-31K1	9(		120.	150		80.	S/RN
CZKI	0 •	304		•	71	. •	120.	190	• 1	00.	37 KM
<b>+895</b>	54.493	52.990	49.0	44 41	4.07	73 3	39.517	36.45	9 35.	383	1.466
1.125	51.102	49.710	46.0		1.48		37.307	34.49		513	1.697
1.363	47.652	46.356	42.9		8.75		34.938	32.39		507	
1.749	42.502	41.356	38.3		4.72		31.460	29.30		559	
2.220	37.211	36.218	33.6		0.52		27.820	26.08		492	
2.785	32.305	31.418	29.1		6.50		24.298	22.94		499	
3.448	28.003	27.217			2.91		21.067	19.97		628	
4.212	24.416	23.685	21.8		9.80		18.240	17.37		117	
5.074	21.558		19.0		7.22		15.835	15.11		926	
6.280	18.865		16.4		4.65		13.437	12.81		658	
7.337	17,273			•	3.14		11.939	11.36		215	
8.465	16.066	15.350	13.6		1.91		10.740	10.18		042	
9.654	15.158	14.416	12.6	-	0.94		9.779	9.23		091	
10.894	14.486	13.710	11.8		0.15		9.001	8.45		318	11.519
12.175	14.003	13.184	11.2		9.52		8.365	7.82		686	12.807
13.488	13.673	12.803	10.8		9.01		7.840	7.30		163	
14.827	13.458	12.540	10.4		8.59		7.403	6.86		727	
16.526	13.355	12.346	10.1		8.18		6.954	6.41		277	
17.896	13.360	12.278	9.9		7.89		6.656	6.11		977	
19.271	13.438	12.276	9.7		7.66		6.402	5.85		721	
20.644	13.584	12.332	9.6		7 48		6.184	5.63		501	
22.011	13.793	12.441	9.6		7.32		5.996	5.44		311	
23.368	14.362	12.599	9.6		7.19		5.832	5.27		146	24.063
24.711	14.390	12.805	9.6		7.09		5.690	5.13		001	
26.036	14.770	13.055	9.6		7.01		5.566	5.00		874	
27.665	15.315	13.424	9.7		6 - 92		5.432	4.86		737	
28.945	15.798	13.760	9.8		5.88		5.339	4.76		641	
30.201	16.318	14.129	9.9		6.84		5.257	4.68		555	
31.435	16.868	14.526	10.0		6.82		5.184	4.60		479	
32.645	17.441	14.946			6.80		5.120	4.53		411	
33.833	18.531	15.387			6.80		5.062	4.46		350	
35.000	18.632	15.844			6.80		5.012	4.41		295	
36.145		16.313				1.3		4.36		245	
37.550	19.989	16.910	11.0		6.83		4.916	4.30		196	38,322
38.654	20.581	17.393	11.2	_	6.85		4.881	4.25		150	39.432
39.742	21.159	17.876	11.4		6.88		4.850	4.22	-	114	40.527
+0.818	21.716	18.357	11.6		6.91		4.821	4.18	T	081	41.608
41.883	22.250	18.833	11.8		6.95		4.796	4.15		051	42.679
42.94.8	22.753	19.302	12.1		6.99		4.773	4.12		023	43.742
43.992	2-3 - 222	19.760	12.3		7.04		4.753	4.09		998	44.800
45.042	23.651	20.204	12.6		7.09		4.734	4.07		975	45.855
46.357	24,123	20.738	12.9		7.15		4.714	4.04		948	47.178
47.415	24.442	21.142	13.2		7.21		4.700	4.01		929	48.242
48-484		21,523		_	7.27		4.687	3.99		912	49.316
49.566	-	21.875	13.7		734		4.675	3.97	-C	896	50.404
								~ ~ ~ ;	~ ●		

МА	CH NO =	25.00	CONE AND	SLE =	6.00 /	ANGLE OF	ATTACK =	3.00
		D /	P FREE-S	TOCAM	AT PLA	ANE ANGL	EC	
L/RN	0.	30.	60.	90				S/RN
EXKI	0.	30 •	00.	70	• 120	J-6- 190	100	37331
50.665	25.045	22.194	14.034	7.41	1 4.68	55 3.95	8 3.881	51.510
51.787	25.118	22.474	14.316	7.48				
52.935	25.129	22.709	14.602	7.56		-		-
54.114	25.082	22.893	14.891	7.64				
55.640	24.950	23.044	15.257	7.75				
56.897	24.800	23.098	15.548	7.85				
58.187	24.620	23.092	15.837	795	6 4.62	27 3.85	3.817	59.073
59.515	24.421	23.031	16.120	8.06	2 4.62	26 3.84	2 3.812	60.408
60.887	24.213	22.919	16.395	8.17	3 4.62	25 3.82	8 3.807	61.788
62,311	24.003	22.765	15.658	8 • 2.9				
63.792	23.801	22.576	16.906	8.41				
65.338	23.611	22.364	17.132	8.54				
67,376	23.399	22.080	17.374	8.72				
69.101	23.253	21.850	17.525	8.87				
7-0.915	23.132	21.630	17.630	9.03				
72.793	23.039	21.430	17.683	9.19				
7-4-737	22.970	21.256	17.684	9,36	-			
76.760	22.921	21.110	17.635	9.53				
78.871	22.891	20.993	17.544	9.71				
81.084	22.876	20.905		9.90				-
84.017	224873	20.833		10.14				
86.514	22.881	20.803	17.060	10.34				
89.167 91.995	22.895 22.914	20.794	16.888 16.722	10.54 10.74				
95.022	22.937	20.820	16.567	10.74				
98.272	22.961	20.848	16.428	11.09				
101.772	22.986	20.881	16.309	11.24				102.898
105.541	23.008	20.917		11.35				106.688
110.525	23.031	20.964	16.127	11.44				111.699
114.727	23.044	21.000		11.47				115.924
119.079	23.052	21.031	16.054	11.47				120.301
123.576	23.058	21.056		11.45				124.823
128.224	23.061	21.073	16.033	11.42		3.54		129.496
133.028	23.065	21.082	16.032	11.37	-			134.326
137.994	23.068	21.084	16.035	11.32				139.320
143.130	23.072	21.082	16.040	11.26	5 6.22	27 3.70	3.780	144.484
149.796	23.076	21.074	16.048	11.19	4 6.35	55 3.73	3.773	151.187
155.336	23.080	21.067	16.054	11.13	7 6.45	50 3.78	3.767	156.757
161.066	23.085	21.060	16.059	11.08				162.518
166.993	23.089	21.053		11.03	-			168.478
173.124	23.094	21.046	16.067	10.98				174.644
179.467	23.099	21.041	16.068	10.94				181:021
186.029	23.104	21.037	16.068	10.90				187.619
192.818	23.109	21.035	16.065	10.87				194.445
201.635	23.114	21.035	16.061	10.83	7 6.83	50 4.02	25 3.742	203.311

MACH NO = 30.00 CONE ANGLE = 6.00 ANGLE OF ATTACK = 3.00

		P /	P-FREE-S	TRFAM A	T PLANE	ANGLES		
L/RN	0.	30.	60:	90.	120.	150.	180.	SZRN
			- 4-4	250		-		
.895	78.210	76-040	70.379	63.225	56.702	52.286	50.740	1.466
1.125	73.308	71.309	66.085	59.492	53.499	49.457	48.048	1.697
1.362	68.328	66.469	61.626	55.550	50.077	46.422	45.153	1.935
1.856	59.001	57.409	53.305	48.237	43.752	40.811	39.795	2.432
2.349	51.420	50.045	46.492	42.213	38.538	36.205	35.422	2.927
2.936	44.589	43.359	40 - 217	36.562	33.539	31.705	31.108	3.518
3-889	37.297	36.220	33.483	30.418	27.998	26.607	26.178	4.396
4.520	32.657	31.639	29080	26.308	24.224	23.114	22.800	5.211
5.765	28.225	27.239	24795	22.235	20.388	19.464	19.224	6.362
6.777	25.581	24.596	22.184	19.713	17.974	17.131	16.918	7.380
7.865	23.562	22.562	20.144	17.716	16.038	15.240	15.041	8-474
9.314	21.708	2.0.671	18.205	15.789	14.149	13.375	1.3,180	9.931
10.532	20.637	19.557	17.023	14.589	12.963	12.199	12.004	11.155
12.112	19.692	18.541	15.891	13.408	11.781	11.025	10.830	12.745
13.412	19.185	17.965	15.199	12.656	11.019	10.267	10.073	14.052
14.736	18.856	17-558	14.656	12.039	1.0:384	9.634	9-440	15.383
16.412	18.644	17.237	14.143	11.416	9.730	8.979	8,786	17.068
17.762	18.608	17.103	13.840	11.012	9.295	8.543	8.351	18:425
19.450	18.704	1.706-1	13.567	10.600	8.638	8.084	7.894	20.123
20796	18.884	17.117	13.418	10.330	8.530	7.773	7.584	21.47.7
22.132	19.151	17-244		10.105	8.262	7.503	7.316	22.820
23.781	19.602	17.498	13.266	9.874	7.976	7.212	7.028	24.478
25.080	2.0 - 05.2	17-77-3	13.267	9.724	7-,7-7-9	7.011	6.830	25.784
26.673	20.717	1.8: 200	13.319	9.574	7.565	6.793	6.614	27.385
27.921	21.323	18.603	13.398	9.478	7.417	6.639	6.463	28.640
29.143	21.989	19.055	13.506	9.402	7.285	6.503	6.329	29.870
30.636	22.892	19.681		9.330		6.352	6.181	31.370
31.801 33.221	23.661	20.226	13.845 14.083	9.290	7.039	6.245	5.077	32.542 33.970
34.329	24.670 25.504	20.952		9.257 9.243		6.126 6.040	5.961 5.878	5 - 5
35.414	26.353	22.198	14.522	9.239		5.962	5.802	35.084 36.175
36.749	27.425	23.014	14.829	9.247		5.874	5.718	37.508
37.777	28.280	23.681	15.090	9.262	6.642	5.811	5.657	38.550
38.795	29.126	24.356	15.363	9.283		5.752	5.601	39.575
40.045			15.726	9.319			5.538	
41.029	30.957	25.885	16.017	9.354	6.494	5.636	5.491	41.821
42.243	31.907	26.728		9.405	6.448	5.580	5.439	43.041
43.204	32.621	27.393		9.452	6.414	5.538	5.400	44.008
44,159	33.287	28.046	17.048	9.502	6.384	5.500	5.364	44.968
45.347	34.040	28.840	17.469	9.572	6.349	5, 454	5.323	46.163
46.298	34.570	29.453	17.815	9.633	6.324	5.420	5.293	47.119
47.491	35.132	30.182	18 - 259	9.715	6.295	5.381	5.258	48.318
48.453	35.493	30.731	18.624	9.785		5.351	5.232	49.285
49.424	35.771	31.242	18.998	9.860		5.32	5.208	50.262
50.657	35.997	31.818		9.961	6.232	5.283	5.181	51.502

	MACH	NO =	30.00	CONE	ANGL	Ε =	6.00	1	ANGLE	OF	ATTA	CK =	3.00
			P /	P FRE	F-51	PEAM-	AT	Uı	ANE	ANGL	E C		•
L/F	N	0.	30.		50.	9(			20.	150		180.	S/RN
		•	303	•		90	•	10		190	•	1004	3/KN
51.66	34 36	5.080	32.219	19.8	170	10.04	.7	6.2	16	5.26	2	5.160	52.514
52.95		5.067	32.633	20.3		10.18		6.1		5.23		5.137	53.809
54.01		5.969	32.885	20.7		19.26		6.1		5.20		5.119	54.875
55.10		5.801	33.061	21.2		10.36		6.1		5.18		5.103	55.969
56.49		5.514	33.168	21.7		10.50		6.1		5.15		5.086	57-369
57.63		5.237	33.162	22.1		10.62		6.1		5.13		5.073	58.517
59.10		4.853	33.046	22.6		10.78		6.1		5.10		5.058	59.995
60.31		4.530	32.874	23.0		10.92		6.1		5.08		5.048	61.216
61.57		4.205	32.641	23.4		11.06		6.1		5.06		5.040	62.478
63.20		3.812	32.281	23.9		11.25		6.1		5.03		ν.	
64.57		3.519	31.951	24.2		11.41		6.1		5.01		5.030	64.122
66.37		3.189	31.508	24.6		11.64		6.1				5.024	65.497
67.88		2.960	31.147	24.9		11.83		6.1		4.98		5.019	67.302
69.46		2.769	30.796	25.1						4.96		5.015	58.825
71.48		2.590	30.790	25.2		12.03		6.1		4.94		5.013	70.409
73.15		2.487	30.116			12.29		6.1		4 - 91		5.010	72.445
74.88			_	25.2		12.51		6.1		4.88		5.009	74.128
	_	2.417	29.873	25.2		12.75		6.1		4 - 86		5.008	75.867
77.14		2.369	29.630	25.0		13.06		6.1		4 • 83		5.008	78.131
79.02		2.355	29.484	24.9		13.32	-	6.1		4.81		5.008	80.028
81.50		2.362	29.361	24.6		13.66		6.2		4 - 7:8		5.010	82.521
83.60		2.382	29.307	24.3		13.95		6.2		4.75		5.010	84.628
85.81		2.409	29.287	24.1		14.24		6.3		4.73		5.010	86.851
88.76		2.451	29.303	23.7		14.62		6.3		4.70		5.009	89.814
91.28		2.489	29.339	23.5		14.93		6.4		4.68		5.008	92.354
94.68		2.539	29.403	23.2		15.29		6.5		4.66		5.006	95.771
97.62		2.581	29.464	23.0		15.55	-	6.6		4.64		5.003	98-724
100.77	-	2.622	29.527	22.8		15.78		6.7		4.63			101.892
104.90	-	2.666	29.608	22.6		15.98	_	6.8		4 • 62			106.044
108.34		2.693	29.6T2	22.5		16.09		6.9		4.61			109.504
112.84		2.711	29.744	22.4		16.15		7.1		4.60			114.029
116.62		2.718	29.795	22.4		16.15		7.3		4.60			117.835
120.60		2.718	29.836	22.4		16.11		7.4		4 • 61			121.833
125.89	-	2.715	29.869	22.4		L6.04		7.6	74	4.62	3	4.936	127.145
130.40		2.713	29.880	22.1		15.95	-	7.8	55	4.63	6	4.925	131.688
136.35		2.713	29.875	22.4	•92 :	15.82	6	8.0	87	4.65	8	4.910	137.672
141.29	94 3 <u>:</u> 2	2.717	29.863	22.5	513	15.71	. 8	8.2	71	4.68	0	4.896	142-638
146.39	8 32	2.721	29.847	22.5		15.60	7	8.4	48	4.70	5	4.883	147-770
153.01	.8 32	2.726	29.825	22.5	557 :	15.47	1	8.5	55	4.74	3	4.868	154.427
158.51	5 32	2.731	29.809	22.5	574	15.37	-0-	8.8	05	4 • 7-7	7		159.954
165.64		2.739	29.791	22.5	90 :	15.25	8	8:9	69	4.82	4	4.842	167.125
171.56	39 32	2.747	29.778	22.5		15.18		9.0		4.86			173.079
177.68	9 32	2.755	29.768	22.6	01 1	15.11	9	9.1	74	4.91	1		179.233
185.63	30 3:2	2.765	29.761	22.6	500 1	15.05	4	9.2	70	4.97	2	4.813	187.218
192.22	23 37	772	29.758	22.5	95 :	15.01	.=O-	9.3	31	5.02	4		193.847
200.77	7 32	2.779	29.760	22.5	586 1	14.96	3	9.3	90	5.09	2	4.799	202.449

M.A	CH NO =	3.50	CONE ANG	LE = 7.	00 ANGL	E OF AT	TACK =	3.00
			_				•	
1.404	•		P FREE-S		T PLANE	ANGLES		
L/RN	0.	ن 30	60.	90•	120.	150.	180.	S/RN
.878	1.734	1.695	1.590	1.455	1.330	1.244	4 23 6	4 44 6
•979	1.721	1.680	1.574	1.439	1.313	1.227	1.214	-
1.034	1.742	1.701	1.594	1.458	1.331	1.245	1.197	
1.155	1.750	1.710	1.605		1.345	1.260	1.215	1.605
1-290	1.742	1.703	1.598	1.466	1.343	1.260	1.230	1.727
1-443	1.730	1.691	1.587		1.337	1.256	1.231	1.864
1.612	1.714	1.675	1.573		1.328	1.249	1.228	2.017
1.801	1.692	1.654	1.555	1.430	1.317	1.241	1.215	2.188
2.009	1.668	1.630	1.533	1.411	1.303	1.231	1.206	2.378
2.238	1.635	1.599	1.505	1.388	1.285	1.217	1.193	2.588
2.622	1.593	1.557	1.465	1.356	1.861	1.198	1.177	2.618 3.206
2.907	1.569	1.534	1.442	1.335	1.246	1.187	1.167	
3.215	1.548	1.513	1.422	1.316	1.229	1.175	1.157	
3.548	1.529	1.495	1.404	1.298	1.212	1.161	1.145	4.138
3.906	1.514	1.479	1.389	1.284	1.197	1.148	1.133	4.499
4.289	1.501	1.467	1.376	1.272	1.186	1.137	1.123	4.885
4,698	1.492	1.457	1.366	1.262	1.178	1.130	1.116	5.297
5.134	1.485	1.450	1.358	1.255	1.172	1.126	1.112	
5.597	1.482	1.446	1.352	1.249	1.168	1,123	1.111	6.203
6.088	1.481	1.444	1.349	1.245	1.165	1.122	1.111	6.697
6.877	1.482	1.445	1.348	1.243	1.163	1.122	1.111	7.492
7.439	1.485	1.448	1.349	1.243	1,163	1.122	1.112	8.059
8.031	1.490	1.451	1.351	1.244	1.165	1.124	1.114	8.655
8.653	1.495	1.456	1.354	1.247	1.167	1.127	1.117	9.282
9.306	1.500	1.461	1.358	1.250	1 170	1.131	1.121	9.939
9.990	1.506	1.466	1.362	1.253	1.174	1.135	1.125	10.629
10.706	1.513	1.472	1.367	1.257	1.178	1.139	1.130	11.350
11.454	1.519	1.478	1.372	1.261	1.182	1.144	1.135	12.104
12.236	1.526	1.484	1.376	1.265	1.186	1.148	1.140	12.892
13.052	1.532	1.490	1.381	1.269	1.190	1.153	1.144	13.714
14.342	1.541	1.498	1.388	1.275	1.196	1-160	1.151	15 - 014
15.246	1.547	1.584	1.393	1.279	1.200	1.164	1.156	15.925
16.187	1.552	1.509	1.397	1.283	1.204	1.168	1.160	16.873
17.166	1.557			1.287	1.207	1.172	1.164	17.859
18.183	1.562	1.518	1.406	1.290	1.210	1.175	1.167	18.884
19.239	1.566	1.522	1.409	1.293	1.213	1-178	1.170	19.948
20.336	1.570	1.526	1.413	1.297	1.216	1.181	1.173	21.053
21.474	1.574	1.530	1.416	1.299	1.219	1.184	1.176	22.199
22.654	1.578	1.533	1.419	1.302	1.221	1.186	1.179	23.388
23.877	1.581	1.536	1.422	1.305	1.224	1.188	1.181	24.620
25.796	1.585	1.540	1.426	1.308	1.227	1.191	1.184	26.553
27.132 28.515	1.588	1.543	1.428	1.310	1.229	1.193	1.185	27.899
29.947	1.591	1.545	1.431	1.312	1.230	1.195	1.187	29.293
31.428	1.593	1.548	1.433	1.314	1.232	1.196	1.188	30.736
014450	1.595	1.550	1.434	1.316	1.233	1.197	1.189	32.228

M.	ACH NO =	3.50	CONE	ANGL	.E =	7.00	) <u>A</u>	INGLE	OF	AT	FACK =	3.00
		0.7	n		O C'AM				441.04			
L/RN	•		P FRE			AT	PLA		ANGL		4.4.4	
EZKI	0•	30.	•	50.	90	•	120	•	150	j •	180.	SZRN
32.960	1.597	1.552	1.4	<b>3</b> 6	1.31	7	1.23	15	1.19	3.6	1.190	33.772
34.545	1.599	1.553	1.4		1.31		1.23		1.19		1.191	35.368
36.183	1.600	1.555		÷39	1.32		1.23		1.20		1.192	37.019
37.877	1.602	1.556		441	1.32		1.23		1.20		1.193	38.725
39.627		1.558		442	1.32		1.23		1.20		1.194	40.489
42.362		1.560		444	1.32		1.24		1.20		1.195	43.244
44.261	1.606	1.561		445	1.32		1.24		1.20		1.195	45.157
46.222	1.608	1.562		446	1.32		1.24		1.20		1.196	47.133
48.248	1.609	1.563		447	1.32		1.24		1.20		1.196	49.174
50.340	1.609	1.564		448	1.32		1.24		1.20		1.197	51.282
52.500	1.610	1.565		449	1.32		1.24		1.20		1.197	53.458
54.730	1.611	1.566		50	1.32		1.24		1.20		1.198	55.705
57.C33	1.612	1.566	1.4	151	1.33		1.24		1.20		1.198	58.025
59.410	1.613	1.567	1.4	151	1.33		1.24		1.20		1.198	60.420
61.865	1.613	1.568	1.4	•52	1.33	1	1.24		1.20		1.198	62.893
65.697	1.614	1.568	1.4	•53	1.33	2	1.24	6	1.20		1.199	66.754
68.355	1.614	1.569	1.4	<b>•</b> 53	1.33	12	1.24		1.20		1.199	69.433
71.100	1.615	1.570	1.4	154	1.33	2	1.24	7	1.20	8	1.199	72.198
73.935	1.615	1.570	1.4	154	1.33	3	1.24	7	1.20	18	1.199	75.054
76.853	1.616	1.570	i.4	<b>•</b> 55	1.33	3	1.24	3	1.20	9	1.200	78.004
79.886	1.616	1.571		55	1.33		1.24	8	1.20	19	1.200	81.050
83.009	1.616	1.571		<b>•</b> 56	1.33		1.24		1.20	19	1.200	84.196
86.235	1.616	1.571		<b>5</b> 6	1.33		1.24		1.20		1.200	87,446
89.567	1.617	1.572		157	1.33		1.24		1.29		1.200	
93.011	1.617	1.572		57	1.33		1.24		1.21		1.200	
98.393	1.617	1.572		57	1.33		1.24		1.21		1.200	99.695
102.131 105.996	1.617	1.572	1.4		1.33		1.25		1.21			103.462
109.990	1.617	1.573		58	1.33		1.25		1.21			107.355
114.120	1.617	1.573	1.4		1.33		1.25		1.21			111.380
118.391	1.617 1.618	1.573	1.4		1.33		1.25		1.21			115.541
122.806	1.618	1.573		5.9	1.33		1.25		1.21			119.844
127.372	1.618	1.573	1.4		1.33		1.25		1.21			124.292
132.095		1.573	1.4		1.33		1.25		1.21			128.893
136.978	1.618	1.573	1.4		-		1.25		1.21			133.650
144.620	1.618	1.574	1.4		1.33		1.25		1.21			138.571
149.934	1.618	1.574	1.4		1.33				1.21			146.278
155.431	1.618	1.574	1.4		1.33		1.25		1.21			151.624 157.162
161.117	1.618	1.574	1.4		1.33		1.25		1.21			162.891
166.999	1.618	1.574	1.4		1.33		1.25		1.21			168.817
173.085	1.618	1.574	1.4		1.33		1.25		1.21			174.948
179.380	1.618	1.574	1.4	-	1.33		1,25		1.21			181.291
185.893	1.618	1.574	1.4		1.33		1.25		1.21			187.853
192.630	1.618	1.574	1.4	_	1.33		1.25		1.21			194.641
203.176	1.618	1.574	1.4	_	1.33		1.25		1.21		-	205.266
			-		_			_		_		

MAC	H NO =	5.00	CONE	ANGLE	=	7.00	AN	IGLE C	F AT	TACK =	3.00
		P /	P FR	EE-STR	FAM	ΔT	PLAN	IF AN	IGL ES	•	
L/RN	0.	30.		60.	90		120		50.		S/RN
.878	2.925	2.852	2.	661	2.41	.7	2.192	2 2 •	038	1.984	1.449
.984	2.871	2.799			2.36		2.141		989	1.935	1.555
1.044	2.876	2.804			2.37		2.153		003	1.950	1.615
1.178	2.830	2.760			2.34		2.131		987	1.936	1.750
1.332	2.766	2.698			2.29		2.087		948	1.900	1.906
1.607	2.650	2.584			2.20		2.008		879	1.834	2.183
1.822	2.561	2.498			2.13		1.948		827	1.785	2.400
2.063	2.469	2.408	2.		2.05		1.883		770	1.731	2.542
2.328	2.367	2,309	2.	159	1.97	<b>6</b>	1.816		713	1.678	2.910
2.776	2.237	2.181		035	1 . 86		1.718		627	1.597	3.360
3.108	2.161	2.106	1.	963	1.79	15	1.655		570	1.543	3.695
3.469	2.092	2.038	1.	896	1.73	3	1.597		516	1.490	4.059
3.859	2.033	1.978	1.	83,8	1.67		1.546		468		4.452
4.499	1.962	1.907	1.	765	1.60	5	1.478	1.	405	1.383	5.097
4.963	1.926	1.870	1.	726	1.56	6	1.440		370	1.349	5.565
5.459	1.899	1.842	1.	695	1.53	4	1.408	1.	339	1.319	€063
5.985	1.879	1.821	1.	671	1.50		1.381		312	1.293	6.594
6.833	1.862	1.801	1.	645	1.47	8	1.350	1.	281	1.262	7.448
7.438	1.857	1.794	1.	635	1.46	4	1.335	1.	265	1.246	8.058
8.076	1.857	1.792	1.	628	1.45	4	1.323		254	1.234	8.700
8.747	1.362	1.795	1,	526	1.44	7	1.314	1.	245	1.226	9.377
9.453	1.9	1.800	1.	627	1.44	. <b>4</b> i	1.309	1.	239	1.220	10.088
10.578	1.887	1.814	1.	633	1.44	3	1.305	1.	234	1.215	11.221
11.374	1.901	1.826	1.		1.44		1.305	1.	233	1.214	12.023
12.203	1.916	1.840		649	1.45	0	1.306	1.	234	1.215	12.858
13.062	1.933	1.855			1.45	5	1.309	1.	236	1.217	13.724
14.407	1.959	1.878			1.46		1.315		241	1.223	15.079
15.341	1.977	1.893			1.47		1.320		246	1.227	16.020
16.305	1.993	1.909			1.48	0	1.325	1.	251	1.232	16.991
17.299	2.010	1.924			1.48		1.331		256	1.238	17.993
18.846	2.033	1.945			1.50		1.340		265	1.247	19.551
19.915	2-047	1.958			1.50		1.346		271	1.253	20.628
21.014	2.050	1.971			1.51		1.352		276	1.259	21.736
22.143	2.073	1.982		759	1.52		1.357		282	1.265	22.873
23.894	2.089	1.998			1.53		1.366		290		, 24.637
25.099	2.099	2.008			1.54		1.371		295	1.279	25.852
26.336	2.108	2.017			1.54		1.376		300	1.284	27:0.97
27.603	2.117	2.025			1.55		1.381		305	1.289	28.374
28.902	2.125	2.032			1.55		1.385		309	1.293	29.683
30.910	2.135	2.043			1.59		1.391		315	1.300	31.706
32-288	2.141	2.049			1-57		1.395		319	1.304	33.095
33.700	2.147	2.054			1.57		1.399		322	1.307	34.517
35.144	2.152	2:059			1.57		1-402		325	1.310	35.972
37.373	2.159	2.066			1.58		1.407		329	1.315	38.218
38.902	2.163	2.070	1.	839	1.58	5	1.410	1.	332	1317	39.759

MA	CH: NO =	5.00	CONE	ANGLE	=	7.00	) A	NGLE	OF	ATTA	CK	=	3.00
		p /	0 50	E-STR	EAM	ΑT	PLA	NE	ANGL	<b>E</b> 0			
L/RN	0.	30.		50.	90		120		150		18	n	SZRN
E) ((14	•	30•	•	J <b>U</b> . <b>U</b>	., 0	•	120	•	<b>4 7 0</b>	•	~ 0	•	0, 1, 1,
40.466	2.167	2.074	1.0	843	1.59	2	1.41	. 3	1.33	4	1.3	19	41.334
42,066	2.170	2.078		846	1.59		1.41		1.33	7	1.3	22	42.946
44,534	2.175	2.083	1.1	851	1.59	9	1.41	.9	1.34	0	1.3	24	45.433
46.227	2.178	2.086		854	1.60	2	1.42		1.34		1.3		47.138
47.359	2.180	2.088		857	1.60		1.42		1.34		1.3		48.883
49.731	2.183	2.091		859	1.60		1.42		1.34		1.3		50.668
52.469	2.186	2.094		863	1.61		1.42		1.34		1.3		53.427
54,349	ù.	2.096		865	1.61		1.43		1.34		1.3		55.321
56.275	2.189	2.098		867	1.61		1.43		1.34		1.3		57.262
58.250	2.191	2.100		869	1.61		1.43		1.35		1.3		59.251
60.275	2.192	2.101		871 877	1.61		1.43		1.35		1.3		61.292
63.412	2.193 2.194	2.103 2.104		873 875	1.62		1.43		1.35		1.3		66.629
65.573 67.792	2.195	2.104		876	1.62		1.43		1.35		1.3		68.865
70.071	2.196	2.106		8: <b>7</b> :7	1.62		1.44		1.35		1.3		71.161
73.608	2.196	2.107		87-9	1.62		1.44		1.35		1.3		74.725
76.049	2.197	2.108		880	1.6		1.44		1.35		1.3		
78.558	2.197	2.109		881	1.62		1.44		1.35		1.3		
81.138	2.197	2.109		882	1.62		1.44		1.35		1.3		82.311
85.146	2-198	2.110		884	1.6		1.44		1.36		1.3		
87.914	2.198	2.110		885	1.63		1.44	<u>.</u> 6	1.36	50	1.3	42	89.138
90.760	2-198	2.111	1.	886	1.63	31	1.44		1.36		1.3		
93.688	2.198	2.111	1.	886	1.63		1.44		1.30				94.956
98.239	2.198	2.111		887		32	1.44		1.36		1.3		
101.382	2.198	2.112		888		33	1.44		1.30				102.707
104.615	2.198	2.112		889	1.6		1.45		1.30				105.965
107-942	2.199	2.112		889	1.6		1.45		1.30				109.317
111.365	2.199	2.112		890	1.6		1.45		1.36				112.765
116.686	2.199	2.113		891	1.6		1.45		1.36				118.127 121.831
120.363	2.199	2.113		891 891	1.6		1.45		1.30				125.642
124.146	2.199 2.199	2.113		892	1.6		1.45		1.3				129.564
128.039 134.091	2.199	2.113		892	1.6		1.45		1.30				135.662
138.274	2.199	2.113		893	1.6		1.45			56			139.876
142.578	2.199	2.113		893	1.6		1.45		1.3				144.213
147.008	2.199	2.113		893	1.6		1.4		1.3				148.676
153.896	2.139	2.113		8.93	1.6		1.45		1.3				155.615
158.656	2.200	2.113		893	1.6		1.45		1.3				160.411
163.554	2.200	2.113		893	1.6		1.45		1.3				165.347
168.596	2.200	2.113		893	1.6		1.4		1.3				170.427
176.437	2.200	2.113	1.	893	1.6		1 -45		1.3				178.326
181.856	2.200	2.113		893	1.6		1.45	55	1.3				183.785
187.433	2.200	2.113	1.	893	1.5		1.49		1.3				189-404
193.173	2.200	2.113		893	1.6		1.45		1.3				195.187
202.099	2.201	2.113	1	893	1.6	44	1.4	55	1.3	68	1.3	348	204.181

М	ACH NO =	10.00	CONE ANG	LE = 7.0	0 ANGL	E OF AT	TACK =	3.00
		-0 /	P FREE-S	TD     A T		11101 50		
L/RN	6.	30.				ANGLES	400	- 45 N
C) KI	0 •	3U •	60.	90.	120.	150.	180.	S/RN
.878	9.861	9.598	8.907	8.034	7 272	C C 04	<i>c</i>	4 44 6
•976		9.317	8.637	7.778	7.232	6.691	6.500	
1.105		9.093	8.447	7.630	6.992	6.463	6.277	
1.336		8.570	7.962	7.198	6.884	6.380	6.204	
1.687			7.420	6.719	6.508	6.046	5.885	1.910
1.921		7.366	5.850	6.213	6.092	5.675	5.530	2.183
2.281		6.747		5.701	5.650	5.281	5.154	
2.691		6.178	5.735	5.213	5.206	4.889	4.782	2.862
3.152		5.666		4.758	4.773	4.500	4.410	3.275
3.665				4.766	4.368	4.125	4.046	3.739
4.229		4.834			4.001	3.785	3.716	4.256
4.844				4.012	3.673	3.479	3.420	4.825
5.508			3.878	3.711 3.459	3.387	3.208	3.155	5.445
6.218		4.065		3.251	3.143	2.972	2.922	6.113
6.979	4.073			3.079	2.938	2.772	2.7.24	
7.762				2.940		2.603	2.556	
8.590	3.882	3.703	3.270	-			2.415	8.384
9.451	3.831	3.642	3.191	2.826 2.734			2.296	
10.343	3.804	3.605	3.133	2.734	_ , , _ ,		2.195	
11.263	3.798	3.588	3.092	2.602	2.328	2.159	2.111	10.985
12.208	3.811	3.588	3.067	2556	2.261		2.040	11.911
13.177		3.603	3.054	2.522	2.205 2.160	2.030	1.981	12.863
14.168	3.883	3.631	3.053	2.496	2.12.2	1.981	1.931	13.840
15.181	3.937	3.671	3.061	2.479	2.092	1.939	1.889	14.839
16.215	4.002	3.720	3.079	2.469	2.092	1.905	1.854	15.859
17.268	4.076	3.778	3.103	2.464	2.048	1.876 1.852	1.824	16.900
18.341	4.157	3.844	3.135	2.466	2.034		1.800	17.962
19.434		3914	3.172	2.472	2.023	1.833 1.817	1.779	19.043
20.546	4.333	3-990	3.213	2.481	2.016		1.763	20.144
21.677		4.068		2.495	2.012	1.804	1.749	21.264
22.441	4.488	4.122	3.291	2.506	2.012	1.795 1.790	1.739	22.403
23.604	4.582	4.203	3.342	2.524	2.011	1.784	1.734	23.174
			3.395				1.7.27	24.345
25.987	4.766	4.366	3.449	2.568	2.017		1.723	
27.206	4.853	4.444	3.504	2.592	2.023	1.779 1.779	1.721	26.746
28.445	4.936	4.521	3.559	2.618	2.030		1.721	27.975
29.702	5.015	4.594	3.613	2.645	2.038	1 781	1.7:22	29.222
30.979	5.088	4.663	3.667	2.673	2.047	1.783 1.787	1.724	30.489
32.276	5.157	4.729	3.719	2.701	2.057	1.792	1.728	31.775
33.594	5.221	4.791	3.769	2.730	2.057	1.797	1.733	33.082
34.937	5.279	4.848	3.818	2.759	2.079	1.803	1-7-38	34.411
36.306	5.333	4.902	3.865	2.788	2.079	1.810	1.744	35.763
37.705	5.382	4.953	3.909	2.817	2.103	1.817	1.752	37.142
39.140		4,999	3.952	2.845	2.116	1.824	1.759 1.768	38.552
40.616	5.464	5.042	3.993	2.874	2.129	1.832	1,7.7.6	39.998
, 0 4 0 2	20104	J J-0 1 G	44770	2.¥.U/-7		T+00C	T ∮ 1:1:0	41.485

M.	ACH NO =	10.00	CONE	ANGLE	=	7.0.0		ANGLE	OF	ATTA	CK =	3.00
		<b>D</b> /	D ED	EE-STR	CAM	A-T	-01	ANE	ANGL	EC		
L/RN	0.	30.		60.	90			20.	150		180.	SZRN
CYKI	U •	30 •		004	91	J- <b>-</b> -	1.		150	•	100.	37-1/14
42.140	5.497	5.082	-4	031	2.90	12	2.1	143	1.84	0	1.786	43.021
43.719	_				2.93				1.84	-	1.795	44.611
45.359		5.147			2.95			17:1	1.85	-	1.805	46.264
47.069		5.171			2.98			186	1.86		1.815	47.986
48.855	5.555	5.190		-	3.01			201	1.87		1.826	49.785
50.724		5.201			3.03			216	1.88		1.837	51.669
52.686		5.206			3.06			232	1.89		1.847	53.646
54.748		-		-	3.08			248	1.90		1.858	55.723
56.881	5.529	5.199	4.	272	3.10	7	2.2	263	1.91	2	1.868	57.872
59.075	5.522	5.192	4.	291	3.12	28	2.2	279	1.92	21	1.878	60.082
61.333	5.516	5.185	4.	307	3.14	48	2 2	294	1.92	29	1.887	62.358
63.660	5.51:0			318	3.16	57	2.	309	1.93	8 8	1: 896	64.702
66.060	5.505	5.173	4.	326	3.1	33	2.3	324	1.9		1.904	67.120
68 • 535	5.500	5.169	-4-0	330	3.19		-	338	1.9	-	1.911	69.613
71.089				330	3.2	-		351	1.98		1.919	72.187
72.838		5.163		330	3.22	_		359	1.90		1.923	73949
75.533		-		328	3.2			<b>37</b> -2	1.97		1.929	76.664
78.317		5.156		325	3.2			384	1.9		1.935	79.469
81.193		5.153		322	3.2			395	1.9		1.940	
84.164				350	3.2			405	1.99		1.945	85 · 360
87 - 233			-	317	3.2			415	2.0		1.949	88.452
90.403					3.29			424	2.0		1.953	91.646
93.678				313	3.3			-	2.0		1.957	
97.060				3-1-0	3.3			441	2.02		1.960	9.8 - 353
100.553				308	3.3			448	2.0			1.0187-2
104.161		-		305	3.3			455	2.0			105.508
107.888			-	30.3	3.3				2.0		-	109.262
111.736	-			300	3.3		_	467	2.0			113.140
115.711	_		-	298	3.3		-		2.0		-	117.144
119.817				296	3.3			47-8 4-9-7	2.0			121.280 125.552
124.056				293 291	3.33 3.33			483 488	2.01			129.963
128.435			-			-		493:			-	134.519
132.957 137.627				288 286	3.3			499	2.0	-		139.224
142.450				284	3.3	_	_	5.04	2.0	-		144.084
147.431				. <b>2</b> 82	3.3	_		50 <del>-8</del>	2.0	-		149.102
152.575				281	3.3			513	2.0	_		154.285
157.888			-	279	3.3			-	2.0		-	159.638
163.375				278	3.3		-	521	2.0	-		165.166
169.042			_	276	3.3			525	2.0			170.875
174.895				275	3.3			-	2.0			176.773
180.941				274	3.3			531	2.0		-	182.864
187.185					3.3			534	2.0	-		189.155
193.635					3.3	-	_	536	2.0			195.653
200.297				271	3.3			538	2.0	-		202.365

MAG	H NO = 1!	5.00 CC	NE ANGL	E = 7.00	) ANGL	E OF ATT	ACK = 3	•.06
		- 4 -	COCK_CT	REAM AT	PLANE	ANGLES		
	_		FREE-ST	90.	120.	150.	180.	S/RN
L/RN	0 •-	30.	011 •	304				
074	21.412	20.831	19.311				14.025	1.449
				16.703		_ • • • • •	13.490	1.605
1.033 1.246			17.488			13.204	12.844	1.820 2.073
1.498			16.283			12.371	12.045	2.475
1.897		15.677	14.564			11.187	10.913 9.789	2.956
2.374	14.213		12.843			10.005	8.948	3.373
2.789			11.665	10.589	9.687	9.132 8.054	7.902	4.006
3.417	11.431		10.265	9.306	8.523	7.113	6.992	4.727
4.132	10.194	9.880	9.084	8.200	7.508 6.850	6.491	6.386	5.322
4.723	9.443	9.132	8.352	7.501 6.733	6.114	5.783	5.688	6.184
5.578	8.648	8.335	7.560	6.125	5.522	5.207	5.118	7.118
6.505	8.051	7.731	6.947	5.756	5.158	4.848	4.762	7.859
7.248	7.710	7.381	6.582 6.199	5.358	4.759	4.451	4.366	8.894
8.268	7.370	7.025	5.974	5.117	4.513	4.205	4.119	
9.070	7.186	6.827	5.748	4.857	4.243	3.932	3.845	10.812
10.172	7.018	6.636 6.516	5.569	4.651	4.024	3.710	3.622	11.956
11.307	6.925	6.465	5.475	4.526	3.886	3.569	3.481	
12.175	6.897 6.905	6.440	5.386	4.392	3.733	3.411	3.322	14.015
13.350	6.958	6.456	5.333	4.288	3.607	3.279	3.189	
14.542 15.445	7.023	6.492	5.312	4.227	3.527	3.194	3.193	
16.655	7.139	6.568	5.308	4.164	3.438	3.097	3.005	
17.870	7.285	6.670	5.326	4.118	3.364	3.016	2.922 2.869	
18.783	7.413	6.762	5.351	4.894	3.317	2.963	2.807	20.714
20.000	7.603	6.903	5.400	4.073	3.265	2.902	2.754	21.938
21.215	7.815	7.064	5.463	4.062	3.222	2.851 2.818	2.720	_
22.122	7.987	7.196	5.519	4.061	3.196	2.779	2.681	24.067
23.328	8.228	7.385	5.604	4.067	3.167 3.149	2.755	2.655	
24.227	8.417	7.535	5.674	4.076 4.094	3.129	2.726	2.626	
25.419	8.675	7.743	5.776	4.117	3.115	2,702	2.601	27.367
26.604	8.936	7.958	5.886 5.973	4.138	3.107	2.687	2.585	28.257
27.487	9.133			4.170	3.099	2.669	2.567	29.437
28.658	9.391	8.341	6.094 6.219	4.206	3.094	2.655	2.552	30.610
29.822			6.315	4.236	3.092	2.645	2.542	31.487
30.693		8.721 8.932	6.446	4.278	3.092	2.635	2.532	
31.850		9.137	6.578	4.323	3.094	2.627	2,523	
33.006			6.678	4.359	3.097	2.622	2.518	
33.875			6.811	4.409	3.102	2.617	2.513	
35.037 35.914	- 77 -		6.911		3.107	2.614	2.511	
37.095			7.044	4.501	3.115			
38.292			7.175	4.558				
39.205			7.273					
40.445			7.402					
41.717			7.528	4.724	3.159	2.613	, 6,516	

MACH NO = 15.00 CONE ANGLE =	7.00	ANGLE OF	ATTACK =	3.00
------------------------------	------	----------	----------	------

		P / P	FREE-ST	REAM AT	PLANE	ANGLĖS		
L/RN	Û•	30.	60.	90.	120.	150 .	180.	S/RN
2								
42.696	11.341	10.378	7.621	4.773	3.170	2.615	2.515	43.581
44.040	11.361	10.459	7.742	4.839	3.187	2.61-9	2.519	44.935
45.435	11.357	10.516	7.859	4.907	3.204	2.62-3	2.526	46.340
46.518	11.340	10.542	7.944	4.960	3.219	2.627	2.531	47.432
48.019	11.303	10.556	8.052	5.032	3.240	2.633	2.539	48.944
49.585	11.256	10.546	8.153	5.105	3.262	2.640	2.549	50.526
50.813	11.218	10.527	8.222	5.160	3.280	2.646	2.557	51.758
52.513	11.164	10.487	8.306	5.235	3、305	2.654	2.569	53.472
53.846	11.124	10.451	8.360	<b>5.292</b>	3.326	2.661	2.578	54.814
55.709	11.973	10.398	». <b>419</b>	5.367	3.355	2.670	2.592	56.691
57.680	11.026	10.343	a,460	5.443	3.386	2.681	2.607	58.677
59.238	10.995	10.303	8.479	5.500	3.411	2.689	2.619	60.247
61.433	10.959	10.253	8.487	5.575	3.446	2.701	2.636	62.458
63.776	10.929	10.209	8.476	5.650	3.483	2.71:3	2.653	64.818
65.638	10.909	10.180	8.459	5.705	3.513	2.723	2.667	66.695
68.261	10.889	10.149	8.427	5.776	3.555	2.737	2.685	69.338
71.059	10.874	10.124	8.390	5.845	3.599	2.752	2.704	72.156
73.284	10.866	10.109	8.361	5.893	3.633	2.763	2.718	74.399
76.441	10.860	10.094	8.322	5.952	3.680	2.780	2.737	77.579
78.916	10.859	10.087	8.295	5.991	3.716	2.793	2.750	80.073
82.329	10.861	10.082	8.265	6.034	3.764	2.810	2.766	83.512
85.875	1.0.865	10.081	8.239	6.065	3.811	2.828	2.780	87.084
88.624	10.869	10.082	8.223	6.081	3.845	2.842	2.791	89.853
92.411	10.874	10.085	8.205	6.094	3.888	2.861	2.803	93.669
96.342	10.879	10.089	8.190	6.099	3.930	2.881	2.815	97.630
99.389	10.883	10.093	8.181	6.098	3.960	2.895		100.699
103.585	1:0.887	10.097	8.171	6.094	3 <b>,9</b> 99	2.916		104.927
107.940	10.891	10.101	8.163	6.087	4.134	2.936		109.315
111.315	10.895	10.103	8.158	6.081	4.060	2.951		112.714
115.963	10.898	10.106	8.154	6.072	4.092	2.972		117.398
120.788	10.902	10.107	8.150	6.062	4.121	2.992		122.259
124.526	10.905	10.109	8.148	6.055	4.141	3.007		126.025
129.677	10.908	10.110	8.146	6.045	4.165	3.027		131.215
133.669	10.910	10.111	8.145	6.037	4.181	3.041		135.237
139.169	10.912	10.111	8.143	6.028	4.200	3.059		140.778
144.881	10.914	10.112	8.142	6.018	4.215	3.07:7		146.533
149.308	10.916	10.112	8.141	6.011	4.225	3.090		150.993
155.408	10.917	10-113	8.139	6.002	4.236	3.106		157.139
161.744	10.919	10.114	8.138	5.994	4.244	3.121		163.522
166.655	10.921	10.114	8.137	5.988	4.249	3.132		168-471
173.424	10.922	10.115	8.135	5.980	4.255	3.145		175.291
180.455	10.924	10.116	8.134	5.973	4.259	3.158		182.374
185.906	10.925	10.117	8.133	5.969	4.261	3.166		187.866
193.419	10.926	10.118	8.132	5.963	4.263	3.177		195.435
201.223	10.927	10.120	8.131	5.957	4.265	3.187	2.918	203298

MACH NO = 20.00CONE ANGLE = 7.00 ANGLE OF ATTACK = P / P FREE-STREAM AT PLANE ANGLES L/RN Û. 30. 60. 90. 120. 150. 180. S/RN .878 37.582 36.557 33.876 30.489 27.389 25,296 24.560 1.449 35.355 31.913 1.098 34.403 28.767 25.903 23.970 23.295 1.670 1.322 33.116 32,223 29.896 26.974 24.339 22.577 21.954 1.896 28.985 26.915 24.342 29.786 22.049 1.681 20.533 20.007 2.257 2.114 26.395 25.679 23.846 21.506 19.649 18.383 17.949 2.694 2.627 23.164 22.525 20.892 18.962 17.332 15.983 16.318 3.211 3.226 20.373 19.793 18.315 16.608 15.205 14.357 14.081 3.814 4.093 17.515 16.974 15.610 14.093 12.906 12.228 12.020 4.688 4.877 15.754 15.224 13.901 12.465 11.376 10.782 10.610 5.478 5.735 14.395 13.863 12.550 11.156 10.123 9.420 6.342 9.575 8.447 6.658 13.366 12.823 11.498 10.117 9.113 8.592 7.272 12.600 12.038 10.682 9.295 7.636 8.303 7.794 7.653 8.258 8.660 12.042 11.453 10.053 8.645 7.652 7.146 7.006 9.289 9.721 11.651 11,029 9.569 8.127 7.126 6.621 6.480 10.358 6.604 11.087 11.348 10.675 9.123 7.624 6.095 5.954 11.735 12.204 10.505 12.859 11.225 8.866 7-.310 6.269 5.756 5.613 7.059 13.334 11.189 5.992 10-416 8.679 5.473 5.329 13.998 14.474 10.395 8.551 11.225 6.857 5.761 5.235 5.090 15.146 15.617 11.321 10.429 8.470 6.696 5.567 5.033 4.887 16.299 16.761 11.469 10.511 8.429 6.569 5.404 4.861 4.714 17.450 17.900 11.664 10.634 8-420 6.469 5.267 4.7:4 4.566 18.598 19.312 11.970 8.449 10.840 6.377 5.124 4.560 4.409 20.021 20.429 12.260 11.043 8.499 6.324 5.030 4.455 4.303 21.147 21.533 12.589 11.278 8.570 6.287 4.949 4.364 4.211 22.259 12.951 22.621 11.543 8.660 6.263 4.881 4.285 4.132 23.355 23.693 13.341 11.833 8.768 6.251 4.822 4.216 4.062 24.435 24.747 13.756 12.146 8.891 6.249 4.773 4.156 4.001 25.497 9.029 25.784 14.188 12.478 6.257 4.730 4.103 3.947 26.542 27.056 14.744 12.913 9.219 6. 277 4.687 4.045 3.889 27.823 28.055 15.195 13.274 9.383 6.301 4.658 4.005 3.348 28.830 29.039 29.821 15.647 13.642 9.557 6.331 4.634 3.970 3.813 30.008 16.093 14.013 9.739 6.366 4.614 3.939 3.781 30.797 14.384 30.965 16.530 9.929 6.407 4.598 3.911 3.753 31.762 31.912 16.952 14.753 10.125 6.452 4.585 3.886 3.728 32.715 32.849 17.357 15.117 19.326 6.501 4.576 3.864 3.705 33.660 34.013 17.832 15.561 10.584 6.568 4.567 3.840 3.681 34.832 3.823 34.940 18.182 15.905 10.794 6.626 4.563 3.664 35.766 18.504 35.867 16.235 11.008 4.560 3.808 3.649 5.688 36.700 36.795 18.792 16.550 11:0225 6.752 4.560 3.795 3.636 37.636 11.444 37.729 19.043 16.847 6.821 4.562 3.783 3.624 38.576 3.773 38.671 19.256 17.124 11.664 6.893 4.565 3.615 39.526 39.625 19-427 17:377 11.4885 6 - 968 4.570 3.764 3.606 40.487 40.839 19.581 17.655 12.163 7.067 4.579 3.755 3.598 41.709 41.831 19.655 42.709 17.843 12.385 7-150 4.588 3.749 3.593

7--238

4.598

3.744

3.589

43.733

42.847

19.687

17.998

12.607

	MACH	NO =	20.00	CONE	ANGLE	=	7.00		ANGLE	0F	ATTA	CK =	3.00
			P /	D ERE	E-STR	FAM	AT	Ωŧ	ANE .	ANGL	FC		
-L/	D N	0.	30.		59.	90		12		150		180.	SZRN
-67		•	00.			90	-•	7.6	•	190	•	100	SEKI
43.8	91 19	9.681	18.116	12.8	126	7.32	9	4.6	10	3.74	1	3.586	44.784
44.9		9.640	18.196	13.0		7.42		4.6		3.73		3.585	45.868
46.0		9.570	18.236	13.2		7.52		4.6		3.73		3.586	46.987
47.5		9.451	18.234	13.5		7.65		4.6		3.73		3.588	48.433
48.7		9.338	18.193	13.6		7.76		4.5		3.73		3.592	49.632
49.9		9.216	18.123	13.8		7.87		4.6		3.73		3.597	50.873
51.2		9.090	18.028	14.8		7.99		4.7		3.73		3.603	52.164
52.5		8.966	17.915	14.1	172	8.11	6	4.7	44	3.74	2	3.611	53.509
53.9	47 1	8.848	17.788	142	287	8.24	2	4.7	71	3.74	5	3.621	54.916
55.4	13 Ì	8.740	17.655	14.3	373	8.37	3	4.8	0 0	3.74	9	3.632	56.393
57.3	55 18	8.624	17.490	14.4	<b>437</b>	8.54	3	4.8	40	3.75	6	3.649	58.349
58.9	82 1	8.547	17.367	14.4	¥52	8.68	3	4.8	76	3.76	1	3.663	59.989
60.6	75 1	8.487	17.259	14.4	+36	8.82	4	4.9		3.76		3.679	61.695
62.4	43 1	8.439	17.165	14.3	392	8.96	7	4.9	55	3.77	4	3.696	63.476
64.2	95 1	8.4C5	17.388	14.3	325	9.11	0	5.0	01	3.78	1	3.714	65,541
66.•2	43 1	8.382	17.028	:14.2		9.25	F	5.0		3.78	9	3.733	67.304
68.3		8.368	16.984	14.1		9.39		5.1		3 <b>.7</b> 9		3.754	69.377
71.0		362	16.950	14.0		9.55		5.1		3.81		3.780	72.143
73.4		8.365	16.936	13.9		9.68		5.2		3.82		3.802	74.517
75.9		8.372	16.933	13.8		9.79		5.3		3.83		3.824	77.051
78.6		8.383	16.938	13.7		9.88		5.3		3.85		3.847	79.767
81.5		8.397	16.949	13.6		9.95		5.4		3.86		3.870	82.683
84.5		3.413	16.965	13.6		0.00		5.5		3.88		3.892	85.768
87.7		8.428	16.984	13.5		0.02		5.6		3.90		3.913	89.016
92.0		8 • 445	17.008	13.5		0.02		5.7		3.93		3.938	93.337
95:.7		8.456	17.026	13.5		0.01		5.8		3.96		3.957	97.018
99.5		8 - 46 6	17.043	13.5		9.98		5.9		3.99			100.835
103.4		8.473	17.056	13.5		9.95		6.0		4.02			104.786
107.5		3 - 479	17.065	13.5		9.92		6.1		4.05			108.875
111.7		8.484	17.071	13.5		9.88		6.2		4.09			113.109
116.0		8.489	17.074	13.5 13.5		9 . 84		6.3		4.13			117.491
121.7		8.493	17.074			9.80		6.4		4.18			1.23,188
126.4 131.2			17.072	13.5 13.5		9.77 9.74		6.4		4.22 4.26			127.929
136.3		8.499 8.501	17.070 17.068	13.		9.71		6.5				-	137.925
141.5		8.504	17.066	13.		9.69		6.5		4.30 4.34		-	143.194
146.9		8.506	17.064	13.5		9 • 67		6.6		4.38			148.652
152.5		8.50.9	17.062	13.5		9.65		6.6		4.42			154.306
159.8		8.51 <u>-1</u>	17.062	13.5		9.63	-	6.6		4•42 4•47			161.662
165.9		8.514	17.062	13.5		9.62		6.6		4.50			167.785
172.2		8.516	17.063	13.5		9.61		6.6		4.54			174.130
178.7		8.518	17.065	13.		9.60		6.6		4 • 57			180.704
185.5		8.519	17.067	13.		9.59		6.6		4.60			187.516
192.5		8.521	17.070	13.9		9.58		6.6		4.62			194.575
201.6		8.523	17.073	13.5		9.57		6.6		4.65			203.758

M/	ACH NO =	25.00	CONE AND	SLE = 7.	00 ANG	_E OF AT	TACK =	3.00
				<b>.</b>				
			P FREE-S		T PLANE	ANGLES		
L/RN	0_•	30₌•	60.	90•	120.	150.	180.	SZRN
-878	58.368	56.772	52.609	47.328	42.510	39.244	38.107	1.449
1.097	54.867		49.512	44.623	40.168	37.165	36.118	1.670
1.403	50.092		45.222	40.816	36.847	34.202	33.281	1.977
1.778	44.802		40.477	36.620	33.198	30.946	30.164	2.355
2.354	38.204		34.510	31.299	28.548	26.798	26.211	2.935
2.907	33.528		30.188	27.383	25.053	23.622	23.151	3.493
3.717	28.581		25.580	23.151	21.210	20.068	19.707	4.308
4.456	25.456		22.584	20.329	18.595	17.631	17.344	5.054
5.487	22.488		19.672	17.534	15.941	15.093	14.852	6.092
6.386	20.732		17.900	15.798	14.266	13.469	13.246	6.998
7.588	19.135			14.125	12.625	11.857	11.646	8.209
8.599 9.911	18.227		15.219	13.094	11.597	10.838 9.825	10.628	9.228
10.990	17.448			12.090	10.583		9.614	10.550
12.363	17.050	_	13.7.07	11.452	9•936 9•283	9.176	8.965 8.305	11.636 13.019
13.473	16.775 16.698		13.188 12.891	10.843	8.858	8.517 8.085	7.872	14.138
14.867	16.744		12.636	10.453	8.422	7.638	7.423	15.542
15.981	16.87-6			9.824	8.134	7.030	7.122	16.665
17.366	17.142		-	9.585	7.834	7.025	6.807	18.060
18.462	17.431		12.400	9.436	7.634	6.813	6.593	19.165
19.814	17.883		· ·	9.292	7.423	6.587		20.527
20.877	18.313	-	12.486	9.205	7.280	6.432	6.210	21.597
22.179	18.928		12.600	9.126	7.129	6.266	6.042	22.910
23.199	19.476		12.7-20	9.083	7.026	6.150	5.926	23.937
2! •444	20.221		12.903	9.051	6.917	6.025	5.799	25.192
25.417	20.855		13.074	9.040	6.842	5.937	5.711	26.172
26.604	21.684		13.315	9.042	6.762	5.840	5.614	27.368
27.532	22.366		13.526	9.056	6.708	5.772	5.545	28.302
28.665	23.232		13.812	9.085	6.649	5.697	5.469	29.444
29.552	23.926		14.055	9.117	6.610	5.644	5.415	30-338
30.639	24.783		14.376	9.167	6.568	5.584	5.355	31.433
31.705	25.619		14.713	9.227	6.533	5.531	5.302	32.507
32.545	26.263		14.993	9.281	6.510	5.493	5.264	33.353
33.581					6.486		5.221	
34.402	27.603	23.823	15.651	9.422	6.471	5.420	5.190	35,225
35.422	28.264	24.482	16.032	9.511	6.456	5.385	5.155	36.252
36.235	28.741	24.989	16.343	9.587	6.446	5.360	5.130	37.071
37.251	29.267	25.590	16.740	9.688	6.438	5.332	5.102	38,094
38.066	29.625		17.064	9.773	6.434	5.311	5.081	38.916
39.094	29.989	_	17.474	9.886	6.432	5.288	5.059	39.951
39.925	30.213		17.807	9.982	6.432	5.271	5.042	40.788
40.979	30.404		18.228	10.108	6.435	5.253	5.025	41.851
41.839	39.489		18.567	10.214	6.440	5.239	5.012	42.717
42.939			_	10.355	6.448	5.224	4.999	43.825
43.843	30.470	28.082	19.335	10.474	6.456	5.214	4.990	44.736

CONE ANGLE = 7.00 ANGLE OF ATTACK = 3.00 MACH NO = 25.00 P / P FREE-STREAM AT PLANE **ANGLES** L/RN . 30 . 60. 90. 120. 150. 180. SIRN 0. 45.007 30.348 28.210 19.760 10.631 6.468 5.203 4.981. 45.909 4.976 45.962 30.206 28.250 20.092 10.762 6.480 5.195 46.871 47.189 29.983 28.223 20.494 10.935 6.497 5.186 4.972 48.107 29.779 28.145 20.800 11.080 6.512 5.181 4.970 49.127 48.201 21.159 11.271 6.534 5.175 4.970 50.446 49.510 29.506 27.983 50.599 27.810 21.421 11.432 6.553 5.171 4.972 51.543 29.284 52.018 29.013 27.553 21.709 11.644 6.579 5.168 4.978 52.973 27.323 21.901 5.603 4.984 54.170 53.207 28.810 11.823 5.166 27.023 22.083 12.061 6.636 5.165 4.994 55.743 54.768 28.580 56.067 28.423 26.788 22.177 12.259 6.666 5.164 5.004 57.052 28.264 57.742 26.515 22.226 12.516 6.706 5.163 5.019 58.740 22.211 12.728 5.032 59.130 28.165 26.319 6.741 5.163 60.138 60.935 28.074 26.108 22.132 13.000 6.791 5.163 5.052 61.957 25.970 22.025 13.225 6.835 5.164 5.069 63.477 62.444 28.024 27.988 21.847 13.511 6.897 5.166 5.093 65.471 64.423 25.837 13.799 21.635 6.968 5.119 27.974 25.747 5.169 67.585 66.521 68.298 27.976 25.703 21.452 14.028 7.033 5.172 5.141 69.375 7.124 5.177 5.170 27.989 25.681 21.219 14.305 71.756 70.661 14.512 7.206 5.182 5.195 73.790 21.038 72.680 28.007 25.684 5.191 5.227 75.385 28.037 25.706 20.830 14.743 7.322 76.515 20.685 77.702 28.065 25.735 14.896 7.428 5.200 5.254 78.849 25.779 20.542 15.037 7.571 5.214 5.285 81.893 80.722 28.104 20.456 15.108 7.695 5.228 5.309 28.134 25.818 84.433 83.244 28.168 86.548 25.866 20.381 15.148 7.862 5.250 5.339 87,762 5.363 20.344 8.006 5.271 90.565 89.331 28-190 25.906 15.147 94.272 8.197 5.302 5.391 93.009 26.210 25.951 20.320 15.110 5,413 97.423 20.314 15.060 5.331 96.137 28.221 25.983 8.357 28.229 26.014 100.315 20.320 14.976 8.563 5.374 5.440 101.632 103.904 28.233 26.030 20.332 14.898 8.731 5.413 5.461 105.248 14.792 8.937 5.470 5.486 110.124 28.236 26.037 20.352 108.744 28.238 9.091 5.503 114.236 112.825 26.036 20.372 14.708 5.521 9.261 5.589 5.521 119.575 118.124 28.243 26.030 20.397 14.609 14.538 9.377 5.648 5.535 124.010 28.245 20.414 122.526 26.021 9.495 5.551 129.771 20.431 14.461 5.727 128.244 28.248 26.011 26.003 20.441 14.411 9.570 5.792 5.564 134.559 132.996 28.250 139.168 28.254 25.994 20.448 14.360 9.641 5.877 5.578 140.777 5.589 145.947 28.258 25.988 28.449 14.327 9.684 5.946 144.299 28.262 150.954 25.983 20.447 14.295 9.722 6.032 5.603 152.661 25.982 20.443 14.274 9.742 6.101 5.613 158.243 156.504 28.266 5.627 165.494 9.754 6.184 28.271 25.982 20.436 14.253 163.701 5.637 171.523 14.239 9.755 €.247 28.274 25.985 20.429 169.684 20.420 177.457 28.277 25.990 14.225 9.744 6.322 5.649 179.354 25.995 20.414 9.728 6.378 5.659 185.865 183.920 28.279 14.217 192.315 28.282 26.002 20.406 14.208 9.701 6.442 5.669 194.323 26.009 20.399 14.201 6.499 5.679 203.153 201.079 28.285 9.669

MA	ÇH NO =	30.00	CONE AND	SLE = 7.	.00 ANG	LE OF AT	TACK =	3.00
		P /	P FREE-S	STREAM	AT PLANE	ANGLES		
L/RN	0.	30.	60.	90 •	120.	150.	180.	S/RN
2,,	•	00.	00.	<b>70 •</b>	1 2.0.0	190.	100.	37 KH
.878	83.776	81.488	75.493	67.922	60.983	56.311	54.678	1.449
1.097	78.719	76.591	71.026	64.003	57.606	53.295	51.789	1.669
1.402	71.827	69.885	64.837	58.510	52.817	49.016	47.695	1.976
1.881	62.275	60.591	56.261	50.917	46.203	43.111	42.044	2.459
2.480	52.919	51.472	47.760	43.329	39.561	37.190	36.401	3.063
3.053	46.408	45.096	41.752	37.863	34.649	32.689	32.047	3.640
3.886	39.598	38.399	35.371	31.980	29.297	27.741	27.255	4.479
4.843	34.423	33.266	30.383	27.254	24.883	23.593	23.218	5,443
5.912	30.647	29.488	26.643	23.639	21.429	20.267	19.940	6.520
7.074	27.960	2.6.769	23.890	20.920	18.784	17.688	17.385	7.691
8.058	26.408	25.174	22.227	19.243		16.053	15.757	
9.341	25.037	23.728	20.654	17.512	15.497	14.431		8.683
10.667	24.156	22.750	19.506	16.370	14.232		14.136	9.975 11.311
12.022	23.651	22.136	18.678	15.415	13.237	13.167		
13.393	23.438	21.785	18:-092	14.677		12.166	11.869	12.676
14.494	23.433	21.665	17761			11.363	11.064	14.057
15.867	23.593	21.670	17.482	14.208	11.924	10.832	10.531	15.166
17.229	23.913	21.817		13.740	11.384	10.276	9.973	16.550
18.573	24.381		17: 323	13.377	10.943	9.817	9.512	17.923
19.631		22.087	17.258	13.096	10.579	9.435	9.128	19.277
	24.857	22.385	17.263	12.920	10.332	9.174	8.866	20.343
20.928	25.572	22.856	17.332	12.748	10.071	8.894	8.584	21.649
23.423	26.412	23.429	17.463	12.621	9.851	8.655	8.344	22.923
	27.363	24.094	17.649	12.532	9.665	8.450	8.139	24.162
24.618	28.408	24.840	17.886	12.475	9.508	8.273	7.961	25.367
25.549	29.299	25.489	18:-107	12.449	9.40.0	8.149	7.837	26.305
26.682	30.466	26.4353	18.420	12.438	9.283	8.011	7.699	27.446
27.783	31.674	27.266	18: 769	12.448	9.183	7.891	7.577	28.555
28.853	32.905	28.217	19.149	12.477	9.097	7.784	7.471	29.634
29.896	34.141	29.194	19.557	12.521	9.025	7.690	7.376	30.684
30.712	35.120	29.988	19.901	12,566	8 - 97-5	7.622	7.308	31.506
31.711	36.319	30.987	20:.352	12.634	-	7.546	7.231	32.513
32.692	37.474	31.984	20.822	12.713	8.875	7.47.7	7.162	33.501
33.657		32.971		12.803	8.836			
34.419	39.395	33.746	21.713	12.882	8.810	7.370	7.055	35.241
35.364	40.348	34.691	22.230	12.989	8.783	7.319	7.003	36.193
36.302	41.204	35.599	22:.761	13.104	8.761	7.273	6.956	37.139
37.238	41.951	36.462	23.306	13.227	8.744	7.231	6.914	38.082
38.176	42.579	37.270	23.863	13.359	8.731	7.192	6.876	39.027
38.930	42.991	37.870	24.318	13.471	8.723	7.164	6.849	39.787
39.881	43.389	38.553	24.897	13.618	8.716	7.132	6.817	40.745
40.846	43.656	39.153	25.486	13.774	8.713	7.102	6.789	41.717
41.829	43.792	39.658	26.084	13.941	8.714	7.076	6.763	42.707
42.834	43.803	4.0.058	26.689	14-117	8.717	7.051	6.741	43.720
43.659	43.726	40.297	27.177	14.267	8.721	7.034	6.725	44.550
44.717	43.535	40.488	27.786	14.464	8.730	7.013	6.708	45.616

MACH NO = 30.00CONE ANGLE = 7.00 ANGLE OF ATTACK = 3.00 P FREE-STREAM AT PLANE **ANGLES** L/RN 0. 30. 60 . 90. 120. 150. 180 . SIRN 45.800 43.254 40.558 28.386 14.673 8.741 6.995 6.694 46.707 46.912 42.905 40.509 28 969 14.893 8.754 6.979 47.828 6.682 47.826 42.590 29.420 40.390 15.078 8.766 6.967 6.675 48.749 49.006 42.171 40.148 29.954 15.323 8.784 6.954 6.669 49.938 50.232 41.746 39.819 30.446 15.583 8.805 6.942 6.666 51.173 51.513 41.332 39.421 30.884 15.860 8.828 6.931 5,666 52.463 52.855 40.946 38.977 31.252 16.157 8.856 6.922 6.669 53.816 53.979 40.667 38.605 31.484 16.410 8.880 6.915 6.674 54.948 55.422 40.370 38.152 31.686 16.740 8.913 6.907 6.683 56.403 56.908 40.132 37.729 31.782 17.086 8.951 6.899 6.695 57.899 58.443 39.950 37.351 31.774 17.446 8.993 6.891 6.709 59.446 60.039 39.824 37.026 31.668 17.823 9.041 6.884 6.727 61.053 61.365 39.756 36.810 31.519 18.136 9.085 6.879 6.744 62.390 63.095 39.708 36.597 31.266 18.541 9.146 6.874 6.768 64.133 64.917 39.694 36.448 30.955 18.957 9.217 6.868 6.794 65.969 66.846 39.703 36.360 30.607 19.381 9.300 6.862 6.823 67.912 68.477 33.725 36.329 30.316 19.719 9.376 6.859 6.848 69.556 70.641 39.763 36.332 29.953 20.130 9.485 6.856 6.882 71.736 72.964 39.812 36.371 29.608 20.513 9.611 6.855 6.918 74.076 75.358 39.869 36.434 29.300 20.849 9.759 6.856 6.955 76.589 78.058 39.931 36.511 29.050 21.116 9.924 6.860 6.991 79.208 80.208 39.980 36.576 28.895 10.069 21.271 6.866 7.019 81.374 82.996 40.037 36.656 28.751 21.395 10.267 6.879 7.054 84.183 85.912 40.085 36.737 28.661 21.446 10.486 6.897 7.089 87.121 88.979 40.121 36.814 28.613 21.433 10.725 6.920 7,123 90.211 92,221 40.144 36.884 28.599 21.369 10.985 6.949 7.155 93.478 94.962 40.154 36.932 28.607 21.286 11.207 6.978 7.182 96.239 98.600 40.160 36.978 28.632 21.152 1-1.499 7.021 7.213 99.905 102.513 40.160 37.004 28.669 20.993 11.802 7.073 7.244 103.847 105.747 40.159 37.010 28.714 20.816 12.110 7.134 7.275 108.112 110.399 40.158 37.001 28.752 20.670 12.352 7.192 7.299 111.792 115.346 40.157 36.980 28.800 20.489 12.640 7.275 7.329 116.776 120.627 40.157 36.955 28 . 845 20.329 12.894 7.369 7.355 122.097 126.132 40.159 36.933 28: 881 20.201 13.103 7.472 7.377 127.643 131.870 36.913 40.162 28-904 20.103 13.267 7.584 7.399 133.425 136.637 40.167 36.900 28 - 914 20.043 13.368 7.679 7.415 138.227 142.823 40.174 36.887 28.916 19.986 13.463 7.802 7.434 144.459 149.273 40.182 36.879 28.909 19.943 13.526 7.929 7.452 150.958 155.997 40.189 36.876 28.897 19.909 13.562 8.058 7.470 157.733 163.009 40.195 36.880 28.883 19.884 13.572 8.185 7.486 164.797 1.68.833 40.199 36.886 28.870 19.868 13.561 8.285 7.499 170.665 176.393 36.896 40.203 28.854 19.855 13.527 8.405 7,513 178.281 184.275 40.207 36.908 28 - 838 19.847 13.474 8.518 7.526 186.223 192.495 40.211 36.919 28.824 19.844 13.411 8.624 7.537 194.505 201.067 40.214 36.930 28.812 19.842 13.344 8.720 7.546 203.141

MAG	CH NO =	3.50	ONE ANGLE	= 8.00	) ANGL	E OF ATT	ACK = 3	.00
					OL ANG	ANGLES		
			FREE-STE		PLANE	150.	180.	SIRN
L/RN	0 •	30.	60.	90.	120.	190 •	1000	30
				4 51.1.	1.413	1.323	1.291	1.431
.851	1.835	1.794	1.684	1.544 1.526	1.394	1.304	1.272	1.530
• 959	1.822	1.779	1.668	1.546	1.413	1.322	1.290	1.585
1.013	1.843	1.801	1.689	1.558	1.427	1.337	1.306	1.703
1.130	1.852	1.810	1.700	1.553	1.425	1.33.7	1.307	1.837
1.262	1.844	1.803	1.693 1.674	1.538	1.413	1.328	1,299	2.066
1.490	1.824	1.782	1.657	1.523	1.401	1.320	1.291	2.241
1.663	1.804	1.763	1.636	1.506	1.388	1,309	1.282	2.434
1.854	1.781	1.740	1.613	1.486	1.372	1.297	1.271	2.646
2.064	1.755	1.715	1.582	1.461	1.353	1.282	1.257	2.879
2.294	1.719	1.681 1.640	1.542	1.426	1.326	1.262	1.240	3.267
2.678	1.678	1.619	1.521	1.405	1.309	1.249	1.228	3.552
2.961	1.657	1.601	1.503	1.387	1.292	1.234	1.215	3.860
3.266	1.638	1.584	1.487	1.372	1.276	1.220	1.202	4.191
3.594	1.621	1.571	1.473	1.359	1.264	1.207	1.190	4.546
3.945	1.608 1.595	1.557	1.458	1.344	1.251	1.195	1.178	5.122
4.516	1.590	1.551	1.451	1.337	1.245	1.190	1.174	5.537
4.926	1.587	1.548	1.447	1.332	1.241	1.188	1-172	5.976
5.361	1.587	1.548	1.445	1.329	1.238	1.186	1.171	6.440
5.821	1.589	1.549	1.444	1.328	1.236	1.185	1,171	6.930
6.306 7.081	1.595	1-554	1.447	1.329	1.237	1.186	1.172	7.713
7.631	1.601	1.559	1.450	1.331	1.238	1.188	1.174	8.267
8.206	1.667	1.564	1.454	1.334	1.241	1.191	1.177	8.849
8.80-9	1.614	1.571	1.459	1.337	1.245	1.195	1.181	9.457
9.439		1.577	1.464	1.342	1.248	1.199	1.186	10.093
10.435		1.588	1.472	1.348	1.255	1.206	1.193	11.100
11.135	:	1.594	1.47-8	1.353	1.259	1.211	1.198	11.806
11.864		1.601	1.484	1.358	1.264	1.216	1.203	12.542 13.307
12.621		1.608	1.489	1.363	1.268	1.221	1.208	14,102
13.499		1.614	1.495	1.367		1.225	1.213	15.352
14.646		1.623	1.503	1.374	1.279	1.232	1.220 1.224	16.225
15.510		1.629	1.508	1.378	1.283	1.236		
16.406		1.534	1.512	1.382	1.287	1.240	1.232	18.066
17.334		1.639		1.386	1.290	1.244	1.235	19.036
18.295		1.644		1.390	1.294	1.247	1.240	20.555
19.799		1.650	1.526	1.395	1.298	1.252	1.243	21.611
20.844				1.398	1.301	1.254	1.245	22.703
21.926	1.706			1.400	1.304	1.257	1.248	23.831
23.043				1403	1.306	1.261	1.250	24.996
24.197				1406	1.308	1.264	1.253	26.816
25.998				1.409	1.311	1.266	1.254	28.077
27.248			1.545	1.411	1.315	1.268	1.256	29.380
28.537				1-413	1.317	1.269	1.257	30.723
29.867				1.415	1.316		1.258	32.108
31.239	9 1.725	1.678	1.551	1416	するかての:	T i C 1-0		

MA	CH NO =	3.50	CONE ANG	LE = 8.	00 ANGL	E OF ATT	TACK =	3.00
		2						
L/RN	0.	30.	P FREE-S			ANGLES		
C/ (()	0.	30.	60.	90.	120.	150 •	180.	S/RN
33.378	1.728	1.679	1.554	1.419	1.320	1.272	1 260	74 264
34.859	1.730	1.681	1.555	1.420	1.321	1.27.3	1.260 1.261	34.268
36.386	1.731	1.682	1.557	1.422	1.322	1.274		35.764
37.960	1.733	1.683	1.558	1.423	1.323	1.275	1.262	37-306
39.583	1.734	1.685	1.560	1.424	1.324	1.27.6	1.264	38.895 40.533
42.110	1.736	1.686	1.561	1.425	1.326	1.277	1.265	43.085
43.859	1.737	1.688	1.562	1.426	1.327	1.278	1.265	44.852
45.662	1.738	1.689	1.563	1.427	1.327	1.278	1.266	46.672
47.520	1.738	1.689	1.564	1.428	1.328	1.279	1.266	48.549
49.435	1.739	1.690	1.565	1.429	1.329	1.279	1.267	50.483
52.419	1.740	1.691	1.566	1.430	1.330	1.280	1.268	53.496
54.486	-1.741	1.692	1.567	1.431	1.330	1.281	1.268	55.584
56.617	1.741	1.693	1.568	1.431	1.331	1.281	1.268	57.736
58.815	1.742	1.693	1.569	1.432	1.331	1.281	1,269	59.955
61.082	1.742	1.694	1.569	1.433	1.332	1.282	1.269	62.244
64.617	1.743	1.694	1.570	1.433	1.332	1.282	1.269	65.814
67.068	1.743	1.695	1.571	1.434	1.333	1.283	1.270	68.289
69.598	1.743	1.695	1:.571	1.434	1.333	1.283	1.270	70-844
72.209	1.744	1.695	1.571	1.435	1.333	1.283	1.270	73.480
74.904	1.744	1.596	1.572	1.435	1.334	1.283	1.270	76.202
79.112	1.744	1.696	.1573	1.436	1.334	1.284	1.271	80.452
82.033	1.744	1.696	1573	1.436	1.335	1.284	1.271	83.401
85.048	1.744	1.697	1.573	1.436	1.335	1.284	1.271	86.446
88.163 91.381	1.744	1.697	1.574	1.437	1.335	1.284	1.271	89.592
96.408	1.745 1.745	1.597	1.574	1.437	1.335	1.285	1.271	92.841
99.899	1.745	1.697	1.574	1.437	1.336	1.285	1.271	97.918
103.505	1.745	1.697	1.574	1.437	1.336	1.285		101.443
107.232	1.745	1.698 1.698	1.575	1.438	1.336	1.285		105.085
111.082	1.745	1.698	1.575 1.575	1.438	1.336	1.285		108.847
117.100	1.745	1.698	1.6575	1.438 1.438	1.336	1.285		112.736
121.279	1.745	1.698	1:•576	1.439	1.337	1.286		118.812
125.598	1.746	1.698	1.576	1.439	1.337	1.286		123.033
130.061	1.746	1.698	1.576	1.439	1.337	1.286		127.394
134.673	1.746	1.698	1.576	1.439	1.337 1.337	1.286		131.901
141.883	1.746	1.698	1.576	1.439	1.337	1.28.6		136.559
146.891	1.746	1.698	1-576	1.439	1.337	1.286		143.839
152.066	1.746	1.698	1.576	1.440	1.337	1.286 1.286		148.896
157.415	1.746	1.698	1.577	1.440	1.338	1.286		154.122
162.942	1.746	1.699	1.577	1.440	1.338	1.286		159.523
171.583	1.746	1.699	1.577	1.440	1.338	1.287		165.106 173.831
177.586	1.746	1:699	1:577	1.440	1.338	1.287		179.893
183.790	1.746	1.699	1.577	1.440	1.338	1.287		186.158
190.202	1.746	1.699	1-577	1.440	1.338	1.287		192.633
200.225	1.747	1.699	1.577	1.441	1.338	1.287		202.754
			-	· · · · <del>-</del>		1	~ T L 7.0	こりにもリンマ

MA	/CH NO =	5.00	CONE AN	IGLE =	8.00	ANGLE	OF a	ATTACK =	3.00
1.401	0		P FREE-				ANGLI		
L/RN	0.	30.	60,	90	1. 12	20.	150	180.	SZRN
•86-1	3.111	3.035	2.833	2.57	7 2.3	<b>የ</b> ሬበ :	2.17	9 2.121	1.431
• 96-3	3.055	2.979	2.778				2.12		1.534
1.021	3.060	2.984		2.53	_		2.13		1.593
1.223	2.981	2.908		2.47			2.10		1.797
1.383	2.910	2.838		2.41			2.05		1.958
1.565	2.827	2.757		2.34			2.006		2.142
1.879	2.691	2.624	2.452				1.92		
2.113	2.600	2.535	2.368				1.86		
2.504	2.455	2.393	2.235				1.77		3.091
2.794	2.376	2.315	2.158				1.716		
3.108	2.395	2.245	2.090		7 1.7		1.66		
3.625	2.213	2.154	2.000	1.82	2 1.6		1.584		4.222
4.000	2.165	2.105	1.950		2 1.6	527	1.541		4.601
4.609	2.109	2.948	1.889			67	1.483	3 1.458	5.216
5.047	2.083	2.020	1.859			34	1.45	1 1.426	5.658
5.510	2.063	1.999	1.835			06 :	1.42	4 1.399	6.126
6.251	2.047	1.980	1.810				1.391		6.875
6.778	2.044	1.975	1.800			58	1.37	4 1-349	7.406
7.614	2.048	1.975					1.356		
8.205	2.055	1.980	1.793				1.348		
8.821	2.066	1.989		1.58			L. 342		
9.796	2.087	2.006	1.806				1.338		
10.481	2.103	2.021					1.337	· · · · · · · · · · · · · · · · · ·	
11.562 12.320	2.131 2.150	2.045		1.60	_		L . 34 (		
13.109		2.062 2.080	1.843				1.343		
14.350	2.199	2.107	1.857 1.877				1.347	- ·	13.800
15.207	2.218	2.124	1.891				1.359		15.053
16.537	2.245	2.149	1.051				36		15.918
17.452	2.262	2.165	1.924				L•37( L•376		17-261
18.390	2.27.8	2.180	1.937				L.383		18.185 19.132
19.840	2.299	2.201	1.954				L • 393		
20.835	2.312	2.213	1.965				L. 399		21.602
21854	2.324			1.7-0			L. 405		
23.425	2.341	2.240	1.990			_	L.414	-	22.630 24.217
24.501	2.350	2.250	1.998		-		1.419		25.304
26.160	2.363	2.263	2.010				L . 427		26.979
27.296	2.371	2.270	2.017				L-432		28.126
28.456	2.378	2.277	2.024				436		29.297
30.241	2.388	2.287	2.033				L . 442		31.100
31.452	2.394	2.293	2.039				446		32.333
33.342	2.401	2.301	2.046				L. 451		34.232
34.628	2.406	2.305	2.051			_	451		35.531
35.942	2.410	2.310	2.055				1.457		36.857
37.965	2.416	2.315	2.061	1.77			1.461		38.900

MAC	CH NO =	5.00	CONE	ANGLE	=	8.00		ANGLE	OF	ATT	ACK =	3.00
1.401	•			EE-STR	-	AT			ANCL			
L/RN	8 •	30.		50.	90	1 ~	12	0 •	150	•	180.	SZRN
39.351	2.419	2.319	2.0	165	1.78	0	1.5	67	1.46	3	1.439	40.299
41.488	2.423	2.324			1.78		1.5		1.46		1.443	
42.953	2.426	2.326			178		1.5		1.46		1.444	
44.454	2.428	2.329			1.79		1.5		1.47		1.446	
46.772	2.431	2.332	2.0		1.79		1.5		1.47		1.449	
48.366	2.433	2.335			1.79		1.5		1.47		1.45	
50.833	2.435	2.337	2.0		1.80		1.5		1.47		1.452	
52.530	2.436	2.339		88	1.80	2	1.5	_	1.47		1.453	
54.272	2.437	2.340	2.0	190	1.80	3	1.5		1.48		1.455	
56.972	2.438	2.342	2.0	193	1.80	6	1.5	90	1.48	2	1.456	
58.833	2.438	2.342	2.0	194	1.80	8	1.5	91	1.48	3	1.457	59.973
61.719	2.439	2.344			1.81		1.5	93	1.48	5	1.459	62.887
63.768	2.439	2.344		198	1.81		1.5	95	1.48	6	1.459	54.896
65.752	2.459	2.345		199	1-81		1.5		1.48		1.460	66.960
68.924	2.440	2.345			1.81		1.5		1.48		1.461	70.163
71.111	2,440	2.346			1.81		1.5		1.48		1.462	72.372
73.359	2.440	2.346			181		1.5		1.49		1.463	
76.849	2.440	2.347			1.81		1.6		1.49		1.464	
79.257	2.441	2.347			1.81		1.6		1.49		1.464	8.0.597
82.995	2.441	2.347			1.82		1.6		1.49		1.465	
85.575	2.441	2 - 347			1.82		1.6		1.49		1.466	
88.227	2.441	2.348	2 • 1		1.82		1.6		1.49		1.466	
		2-,348			1.82		1.5		1.49		1.467	
95.188		2.348			1.82		1.6		1.49			96.685
°9.60≅		2-348			1.82		1.6		1.49			3 101.144
102.651	2.441	2.348	2.1		1.82		1.6		1.49			104.221
110.653	2.441 2.442	2.348			1.82		1.6		1.49			107.386
114.04.3	2.442	2.348 2.348			1.82		1.6		1.49			112.302
119.233	2.442	2.348			1.82		1.6		1.49			115.695
122.837	2.442	2.348			1.82 1.82		1.6		1.49			120.967
126.544	2.442	2.348			1.83		1.6		1.49			124.607
132.302	2.442	2.348			1.83		1.6		1.49			128.349
136.277	2.442	2.348			1.83		1.6		1.49	_		1-34-164
142.453	2.443	2.348	2.1		1.83		1.6		1.50			. 138.178 . 144.415
146.717	2.443	2.348	2.1		1.83		1.6		1.50			148.720
151.102	2.443	2.348	2.1		1.83		1.6		1.50			153.149
157.915	2.443	2.348	2.3		1.83		1.6		1.50			160.028
162.619	2.443	2.348	2.1		1.83		1.6		1.50			164.779
169.927	2.443	2.348	2.1		1.83		1.6		1.50			172.158
174.972	2,443	2.348	2.1		1.83		1.6		1.50			177.254
180.162	2.444	2.348	2.1		1,83		1.6		1.50			182.494
188.225	2,444	2:348	2 4 1		1.83		1.6		1.50			190.636
193.792	2.444	2.348	2.1		1. 83		1.6		1.50			196.258
202.441	2.444	2.348	2.1		1.83		1.6		1.50			204.993

ANGLE OF ATTACK = 8.00 MACH NO = 10.00 CONE ANGLE = PLANE **ANGLES** P / P FREE-STREAM AT S/RN 90. 180. 120 . 150. L/RN 9. 30. 60. 6.984 1.431 7.184 10.258 9.531 8.606 7.759 10.536 .861 6.739 1.585 8.300 7.484 6.932 9.191 10.160 9.893 1.013 1.719 7.273 6.751 6.569 8.047 9.573 8.898 9.831 1.146 1.948 6.219 6.387 9.019 8.385 7.588 6.868 9.263 1.373 2.311 5.862 5.716 6.918 6.282 1.732 8.429 8.207 7.632 5.322 2.629 5.451 7.593 5.827 2.047 7..802 7.059 6.402 2.988 4.944 5.053 6.986 5.890 5.378 7.180 6.488 2.403 4.663 4.567 3.391 4.954 2.802 6.451 5.978 5.422 6.636 4.104 3.997 5.381 4.866 4.444 4.188 6.003 5.827 3.402 4.106 3.872 3.798 4.502 5.612 5.439 5.000 4.504 3.902 3.590 3.523 5.049 4.193 3.810 4.443 5.292 5.118 4.680 3.280 5.635 3.344 3.932 3.556 4.859 4.417 5.024 5.036 6.474 3.279 3.072 3.010 3.652 5.854 4.780 4.596 4.142 2.904 2.843 7.141 3.110 6.515 4.642 4.452 3.984 3.485 2.762 2.701 7.837 4.345 2.969 4.544 3.860 3.350 7.204 2.581 8.559 4.270 3.766 3.240 2.852 2.643 7.919 4.478 2.450 9,557 4.211 2.728 2.513 4.435 3.677 3.127 8.908 2.653 2.434 2.370 10.329 3.063 3.634 9.67-2 4.430 4.194 2.591 2.358 2.303 11.119 3.014 4.446 4.196 3.607 10.454 2,313 2.246 11.924 3.595 2.541 2.977 4.214 11,251 4.479 2.943 2.253 2.185 13.019 2.488 3.599 4.547 4.261 12.335 2.216 2.147 13.854 4.310 2.929 2.457 4.612 3.613 13.163 14.701 2.186 2.115 4.369 3.637 2: 921 2.433 4.688 14.002 2.161 2.089 15.559 2.414 2.920 14.851 4.772 4.437 3.668 16.717 3.721 2.397 2.134 2.061 2.928 4.894 4.537 15.998 2.389 2.119 2.044 17.597 3.766 2.939 4.992 4.619 16.869 2.108 2.031 18.485 2.385 4.704 2.955 5.093 3.816 17.749 2.020 19.382 2.099 3.870 2.974 2.383 5.196 4.793 18.637 20.590 2.091 2.011 3.003 2.386 19.833 5.335 4.913 3.946 2:088 2.006 21.505 2.390 5.004 4.005 3.028 20.739 5.438 22.427 3.056 2.397 2.087 2.003 5.094 4.066 5.540 21.652 2.088 2.003 23.669 3.095 2.408 5.212 4.148 5.670 22.882 2.418 2.091 2.004 24.610 4.209 3.125 5.763 5.297 23.814 2.007 25.559 4.271 3.157 2-430 2.095 5.852 5.380 24.754 26.517 2.442 2.100 2.011 5.937 5.459 4.331 3.189 25.703 2.108 27.811 2.460 2.017 3.233 26.984 6.041 5.559 4.410 28.796 2.474 2.115 2.024 3.267 6.113 5.629 4.467 27.960 29.795 2.123 2.031 2.489 5.696 4.523 3.301 28.949 6.180 2.039 30.811 2.132 6.242 5.758 4.577 3.334 2.505 29.955 32.197 4.646 3.379 2.526 2.144 2.051 6.315 5.836 31.328 33,265 2.543 2.155 2.060 6.363 5.889 4.696 3.413 32.384 2.560 2.165 2.071 34.359 3.446 5.937 4.744 33.469 6.404 2.176 2.082 35.486 3.479 2.577 4.790 34.584 6.437 5.980 2.097 37.044 2.192 3.523 2.601 4.848 36.127 6.470 6.030

3.555

6.060

6.486

37.332

4.890

2.619

2.204

2.109

38.261

	MACH NO =	10.00	CONE ANG	LE = 8.1	0 ANGL	E OF ATT	TACK =	3.00
L/R	N o		P FREE-S			ANGLES		
L/K	N 0.	30.	60.	90•-	120.	150.	180.	S/RN
38.58	3 6.494	6.083	4.929	3.587	2.638	2 24 6	2 40-0	<b>30 50</b> .
39.88		6.099	4.966	3.618	2.657	2.216 2.229	2.122	
41.70		6.109	5.012	3.659	2.682		2.135	- 1
43.14		6.110	5.042	3.688	2.701	2.246 2.259	2.153	
44.65		6.106	5.069	3.71.7	2.721	2.272	2.167 2.182	
46.23		6.099	5.092	3.745	2.740	2.286	2.196	
48.46		6.087	5.115	3.781	2.766	2.303	2.215	
50-24		6.079	5.126	3.807	2.785	2.316	2.230	
52.11	6.433	6.070	5.133	3.831	2.804	2.329	2.244	
54.04		6.063	5.135	3.854	2.823	2.342	2.257	
56.72		6.955	5.134	3.883	2.847	2.358	2.274	
58.80		6.049	5.131	3.903	2.864	2.369	2.286	
60-,95		6.044	5.126	3.921	2.881	2.381	2.297	
63.17		6.039	5.122	3.938	2.896	2.391	2.308	
66.24		6.034	5.117	3.957	2.916	2.405	2.320	
68.63	-	6.030	5.113	3.969	2.930	2.415	2.329	
71.10		6.027	5.110	3.979	2.944	2.424	2.337	
74.51	_	6.023	5.105	3988-	2.960	2.436	2.346	
77 - 177		F.021	5.102	3.993	2.972	2.444	2.35-3	
79.920		6.020	5.099	3.997	2.983	2.452	2.359	
82753		6.019	5.096	3. 999	2.993	2.460	2.364	
86.67		6.018	5.092	4.001	3.007	2.470	2.371	
89.721		6.018	5.089	4.002	3.016	2.477	2.375	91.164
92.868 96.117		6.019	5.086	4.002	3.025	2.484	2.379	
100.611		6.019	5.084	4.003	3.034	2.490	2.383	
104.108		6.019	5.081	4.002	3.044	2.499		102.162
107.718		6.020 6.020	5.079	4.002	3.051	2.504		105.693
111.444		6.020	5.077	4.001	3.058	2.510		109.339
116.598		6.021	5.075 5.074	4.000	3.064	2.515		113.101
120.609		6.021	5.072	3.999	3.070	2.521		118.305
124.748		6.022	5.071	3.997 3.996		2.526		122.356
129.021		6.022	5.070	3.996 3.994	3.078	2.530		126.536
134.934			5.069		3.082	2.534		130-851
139.535		6.024	5.068	3.992 3.991	3.085 3.088	2.539		136.822
144.285		6.024	5.068	3.989	3.090	2.543		141.468
149.188		6.025	5.067	3.987	3.091	2•546 2•549		146.264
155.972		6.026	5.066	3.985	3.093	2.553		151.216
161.252		6.026	5.066	3.983	3.094	2.556		158.067
166.704		6.027	5.065	3.982	3.096	2.558		163.399 168.904
172.331		6.027	5.065	3.980	3.096	2.561		174.586
180.119	6.414	6.028	5.065	3.978	3.097	2.563		182-451
186.180		6.029	5.065	3-977	3.098	2.565		188.572
192.438		6.029	5.065	3.975	3.098	2.567		194.891
201.099	6.415	6.030	5.065	3.974	3.098	2.569		203.637
				-		· <del>-</del> -		

MACH NO = 15.00 CONE ANGLE = 8.00 ANGLE OF ATTACK = 3.00

		P /	P FREE-S	TREAM A	T PLANE	ANGLES		
L/RN	0-•	30.	60.	90.	120.	150.	180.	SIRN
.861	22.900	22.287	20.684	18.650	16.787	15.526	15.088	1.431
1.010	22.007	21.421	19.880	17.927	16,140	14.933	14.512	1.582
1.209	20.813	20.257	18.808	16.986	15.337	14.231	13.845	1.783
1.528	18.978	18.471	17.159	15.520	14.050	13.072	12.731	2.105
1.912	17,054	16.594	15.415	13.961	12.680	11.841	11.551	2.493
2.364	15.172	14.758	13.695	12.418	11.323	10.628	10.395	2.949
2.890	13.536	13.152	12.173	11.024	10.062	9.466	9.268	3.480
3.489	12.134	11.772	10.852	9.799	8.942	8.425	8.257	4.085
4.157	11.009	10.653	9.758	8.760	7.972	7.517	7.376	4.760
4.891	10.137	9.779	8.888	7.914	7.163	6.741	6.614	5.501
5.682	9.481	9.114	8.211	7.241	6.507	6.102	5.981	6.300
6.522	9.003	8.621	7.691	6.710	5.980	5.583	5.466	7.148
7.402	8.667	8.265	7.298	6.294	5.558	5.162	5.046	8.037
8.315	8.446	8.019	7.005	5.969	5.220	4.821	4.704	8.958
9.252	8.318	7.862	6.792	5.716	4.949	4.544	4.426	9.905
10.209	8.267	7.777	6.642	5.518	4.730	4.318	4.198	10.871
11.180	8.280	7.753	6.545	5.366	4.553	4.133	4.011	11.852
12.160	8.345	7.778	6.490	5.251	4.408	3.979	3.855	12.841
13.145	8.454	7.844	6.470	5.165	4.291	3.851	3.724	13.837
14.133	8.599	7.944	6.480	5.104	4.195	3.744	3.615	14.834
15.120	8.774	8.072	6.513	5.062	4.118	3.654	3.523	15.830
16.103	8.977	8.224	6.567	5.038	4.056	3.579	3.445	16.823
17.080	9.283	8.398	6.638	5.028	4.006	3.516	3.379	17.810
18.050	9.450	8.591	6.724	5.029	3.967	3.463	3.324	18.789
19.011	9.715	8.800	6.822		3.936	3.419	3.277	19.759
19.961	9.994	9.023	6.932	5.061	3.913	3.383	3.238	20.719
20.902	10.283	9.257	7.051	5.088	3.896	3.352	3.205	21.669
21.831	10.577	9.500	7.179	5.121	3.885	3.327	3.177	22.608
22.751	10.873	9.748	7.314	5.160	3.878	3.306	3.154	23.536
23.661	11.166	9.998	7.455	5.204	3.876	3.289	3.135	24.455
24.563	11.452	10.247	7.601	5.252	3.876	3.276	3.120	25.366
25.459	11.729	10.494	7.752	5.303	3.880	3.266	3.107	26.271
26.349	11.993	10.735	7.905	5.358	3.887	3.258	3.097	27.170
27.237	12.242	10.969	8.059	5.417	3.896	3.252	3.089	28.067
28.125	12.475	11.195	8.216	5.478	3.907	3.249	3.084	28.963
29.015	12.687	11.409	8.372	5.542	3.920	3.247	3.080	29.862
29.910	12.878	11.612	8.529	5.609	3.935	3.247	3.078	30.765
30.813	13.046	11.801	8.684	5.678	3.952	3.248	3.078	31.677
31.727	13.187	11.974	8.838	5.749	3.970	3.251	3.079	32.601
32.657	13.302	12.129	8.991	5.823	3.991	3.256	3.082	33.540
33.605	13.390	12.265	9.140	5.899	4.013	3.262	3.086	34.497
34.575	13.449	1-2.37-9	9.287	5.978	4.036	3.269	3.092	35.476
35.571	13.482	12.471	9.430	6.058	4.062	3.277	3:099	36.482
36.598	13.491	12.538	9.567	6.141	4.089	3.287	3.108	37.519
37.660	13.478	12.580	9.698	6,225	4.118	3.298	3.118	38.592
		-, + > 0 0.	2.070	U = = - /	·; • * * * O	01-10	~ · I I V	004796

MACH NO = 15.00CONE ANGLE = 8.00 ANGLE OF ATTACK # P / P FREE-STREAM AT PLANE ANGLES L/RN. 60. 90. 120. ņ. 30. 150. 180-S/RN 3.127 38.483 13.457 12.597 9.791 6.290 4.141 3.308 39.423 39.618 13.417 12.599 9.908 6.378 4.173 3.321 3.139 40.570 40.798 13.367 12.581 10.013 6.467 4.207 3.336 3.154 41.761 42.027 13.311 12.548 10.104 6.557 4.242 3.352 3.170 43.002 43.310 13.252 12.502 10.181 6.647 4.279 3.369 3.188 44.298 44.655 13,192 12.448 10.240 6.739 4.319 3.207 45.656 3.388 13,135 3.229 46.069 12.389 10.280 4.360 6.830 3.407 47.083 47.560 13.082 12.329 10.301 6.922 4.403 3.429 3.252 48.590 49.138 13.035 12.270 10.304 7.014 4.448 3.451 3.277 50.183 50.803 12.996 12.216 10.291 7.104 4.495 3.303 3.474 51.864 52.553 12.964 12.169 10.264 7.191 4.543 3.498 3.331 53.631 54.400 12.938 12.130 10.228 7.274 4.594 3.523 3.360 55.497 3.390 56.357 12.920 12.098 10.185 7.351 4.646 3.548 57.473 58.438 12.907 10.140 4.701 3.575 12.074 7.420 3.422 59.574 60.657 12.899 12.056 10.095 7.480 4.757 3.602 3.454 61.815 63.031 12.897 12.845 10.052 7.528 4.816 3.630 3.487 64.212 3.659 66.785 65.579 12.898 12.039 10.015 7.564 4.877 3.520 68.319 12.902 9.983 7.586 4.939 12.038 3.689 3.553 69.552 71.240 12.908 12.941 9.957 7.596 5.002 3.719 3.584 72.502 74.279 12.915 9.939 7.596 5.064 12.047 3.749 3.613 75.570 77.431 12.923 9.925 7.589 12.054 5.123 3.779 3.639 78.754 9.916 7.579 80.703 12.930 5.178 3.664 12.061 3.810 82.058 84.096 12.937 12.068 9.909 7.566 5.230 3.840 3.685 85.485 12.943 9.906 7.552 5.276 3.705 87.617 12.074 3.870 89.040 9.904 3.722 91.270 12.948 12.079 7.538 5.317 3.900 92.728 7.524 95.059 12.953 12.082 9.904 3.930 96.555 5.351 3.738 98.991 12.957 12.085 9.904 7.511 5.380 3.959 3.752 100.526 103.071 12.960 12.087 9.905 7.499 5.403 3.988 3.764 104.646 107.306 12.963 12.089 9.905 7.487 5.420 4.015 3.775 108.922 9.906 7.477 5.434 111.701 12.965 12.089 4.041 3.785 113.360 12.967 9.906 7.467 116.262 12.090 5.444 4.066 3.794 117.967 4.089 120.997 12.969 9.906 7.458 5.452 12.090 3.802 122.748 12-091 125.913 12.971 9.906 7.450 4.110 5.458 3.810 127.712 9.905 12.972 12.091 131.016 7.444 5.461 4.130 3.816 132.866 136.315 12.973 12.092 9.904 7.438 5.464 4.147 3.823 138.216 141.816 12.975 12.092 9.903 7.433 5.465 4.162 3.828 143.772 147.528 12.97-6 12.093 9.902 7.428 5.465 4.175 3.833 149.540 153.459 12.97-7 9.901 12.094 7.424 5.464 4.186 3.837 155.529 159.617 12.978 12.096 9.900 7.420 5.463 4.196 3.841 161.748 12.979 12.097 9.900 7.417 5.461 4.204 166.012 3.843 168.206 17-2.653 12.980 12.098 9.899 7.413 5.459 4.211 3.845 174.912 179.549 9.899 12,981 12.100 7.410 5.456 4.217 3.846 181.875 186.709 12.982 12.101 9.899 7.406 5.453 4.223 3.847 189.106 194.146 12.983 12.103 9.899 7.403 5.450 4.228 3.848 196.615 9-899

7.40.0

5.448

4.233

3.849 204.413

201.868

12.983

12.104

MACH NO =  $20.00^{\circ}$ CONE ANGLE = 8.00 ANGLE OF ATTACK = PLANE P / P FREE-STREAM AT ANGLES L/RN 0. 60. 90. 120. 150. S/RN 180. 40.209 .861 39.126 36.297 32.799 29.425 27.204 1.431 26.431 1.071 37.925 36.913 34.264 30.917 27.864 25.804 25.084 1.643 1.357 34.845 33.911 31.481 28.433 25.686 23.850 1.932 23.211 1.704 31.438 30.593 28.412 25.706 23.299 21.708 21.156 2.283 2.232 27.171 24.538 2.816 26.436 22.237 20.249 18.976 18.546 2.733 24.146 23.464 21.725 19.676 17.952 16.87-8 16.521 3.322 18.719 14.237 3.461 20.933 20.307 16.902 15.422 14.528 4.057 16.753 4.120 18.898 18.287 13.691 15.041 12.911 12.668 4.723 5.032 16.970 16.357 14.838 13.187 11.922 11.216 11.004 5.643 6.025 15.609 14.976 13.429 11.785 10.556 9.885 9.687 6.646 10.924 7.496 6.867 14.840 14.180 12.588 9.698 9.040 8.847 7.965 14.187 13.482 11.809 10.096 8.858 8.199 8.007 8.606 8.871 13.861 13.112 11.355 9.588 8.329 7.666 7.472 9.520 10.026 7-.804 13.647 12.832 10.951 9.098 7.131 6.935 10.687 10.962 13.600 12.726 10.731 8.797 7.468 6.784 6.586 11.632 12,139 8.509 13.667 12.711 10.558 6.228 7.130 6.430 12.820 13,081 13.799 12.774 10.485 8.336 6.911 6.196 5.992 13.771 12.928 10.459 14.253 14.046 8.175 6.688 5.954 5.745 14.955 15.415 14.368 10.491 8.064 16.128 13.151 6.511 5.756 5.543 16.332 14.677 13.372 10.550 8.003 5.407 6.396 5.624 17.054 17.461 15.122. 13.698 10.659 7.957 6.279 5.485 5.264 18.195 7.939 18.348 15.520 13.995 10.771 6.203 5.391 5.167 19.090 19.435 14.407 10.938 7.936 5.292 16.066 6.126 5.063 20.188 20.287 16.535 14.767 7.947 11.091 6.076 5.224 4.993 21.048 21.329 17.149 15.247 11.305 7.975 6.026 5.152 4.917 22.101 22.347 17.784 15.753 11,540 8.017 5.989 5.092 4.853 23.129 23.145 18.300 8.059 16.172 11.742 5.965 23.934 5.051 4.809 24.123 18.942 16.705 12.011 8.121 5.944 5.007 4.762 24.922 8.178 . 24.892 17.135 12.235 19.448 5.932 4.976 4.729 25.698 25.838 20.063 17.671 12.528 8.256 5.923 4.944 4.693 26.654 18.095 26.586 20.533 12.769 8.325 5.920 27.409 4.922 4.669 27.511 21.088 18.613 13.079 8.417 5.920 4.899 4.642 28.343 28-246 21.500 19.013 13.332 8.496 5.924 4.883 4.624 29.085 29.161 21.968 19.493 13.653 8.601 5.933 4.866 4.604 30.009 30.075 19,943 13.979 22.380 8.711 5.945 4.854 4.588 30.933 14.241 30 . 809 22.665 20.278 8.804 5.958 4.845 4.578 31.674 14.571 31.733 22.961 20.661 8.926 5.977 4.567 4.838 32.607 32.481 23.149 20.935 14.835 9.028 5.994 4.834 4.560 33.362 33.428 23.322 21.234 15.164 9.162 4.555 6.019 4.831 34.318 34.200 23.411 21.434 6.042 15.424 9.273 4.830 4.552 35.098 35.186 23.466 21.633 15.745 9.418 6.073 4.832 4.551 36.094 36.202 23,462 21.773 9.569 16.058 6.107 4.836 4.552 37-120 37-.039 23.421 21.842 16.300 9.696 6.137 4.842 4.556 37.965 38-120 23.33.0 21.875 16.588 4.562 9.860 6.178 4.850 39.057

9.996

6.213

4.859

4.569

39.956

39.011

23.231

21.862

16.803

75

MACH NO = 20.00CONE ANGLE = 8.00 ANGLE OF ATTACK = 3.00 PLANE P / P FREE-STREAM AT **ANGLES** L/RN 0. 30. 60. 99. 120. 150. 180. SIRN 40.161 23.084 21.800 17.047 10.172 6.259 4.872 4.581 41-, 118 22.953 17.220 41.115 21.720 10.318 6.299 4.884 4.593 42.081 22.783 42.357 21.588 17.483 10.506 4.901 6.351 4.610 43.335 43.394 22.648 21.462 17.520 10.661 6.396 4.917 4.626 44.383 44.755 22.488 21.289 17.624 16.861 6.456 4.939 4.649 45.757 46.188 22.346 21.111 17.680 4.953 11.066 6.521 4.677 47.204 47.376 22.249 4.701 20.976 17.689 11.232 6.575 4.983 48.403 48.919 22.149 20.821 17:.660 11-439 6.646 5.010 4.733 49.962 50.208 22.087 20.712 17.608 11.604 6.706 5.033 4.762 51.263 51.897 22.028 20.599 17.512 11.806 6.787 5.064 4.801 52.969 21.996 53.319 20.527 17.417 11.962 6.855 5.090 4.835 54.404 55.197 21-972 20.460 17.284 6.947 12.147 5.124 4.881 56.301 20.419 57.204 21.962 17.144 12.315 7.048 5.160 4.930 58.329 21.963 4.972 58.916 20.401 17.034 12.432 7.134 5.191 60.057 21.971 61.204 20: 395 16.908 12.552 7.251 5.231 5.027 62.367 63.132 21.983 20.401 16.821 12.624 7-.351 5.265 5.072 64.314 22.003 20,417 16.734 7.482 65.654 12.680 5.309 5.129 66.851 22.022 5.175 67.774 20.434 16.680 12.700 7.591 5.346 69.002 12.699 70.570 22.045 28.458 16.633 7.734 5.395 71.825 5.233 72:940 22.064 28-479 16.609 12.680 7.850 5.437 5.278 74 . 21.8 76.094 22.083 20.507 16: 592 5.335 12.640 7.998 5.493 77.404 79.494 22.099 16.587 20.532 8.144 12.587 5.554 5.391 80.838 82.418 22.109 20.550 16.590 12.540 8 257 5.606 5.435 83.790 86.364 22.118 20.566 16.598 12.479 8.388 5.676 5.488 87.775 89.749 22.123 20.574 16.609 12.430 8.481 5.736 5.527 91.193 94.141 22.129 20.579 16.624 12.377 8.577 5.812 5.570 95.629 97.725 22.134 20.581 15.636 12.341 8.637 5.873 5.600 99-247 102.288 22.139 20.580 16.649 12.302 5.948 8.693 5.632 103.855 106.961 22.142 20.578 16.658 12.272 5.661 108.574 8.732 6.020 20.576 12.252 110.792 22.144 16.663 8.754 6.076 5.681 112.442 22.146 20.574 8.773 6.141 115.711 16.666 12.233 5.704 117.410 22.148 119.763 20.572 16.666 12.221 8.781 6.190 5.720 121.502 124.993 22.150 20.570 16.665 5.737 126.783 12.209 8.786 6.246 20.569 129.321 22.151 16.663 12.201 8.785 6.286 5.748 131.154 20.569 134.932 22.153 16.660 12.194 8.779 6.331 5.760 136.820 22.155 139.594 20.569 16.656 12.189 8.771 6.363 5.768 141.528 12.184 145.660 22.156 20.571 16.652 5.775 147.653 8.757 6.397 20.573 152.011 22.158 16.648 12.180 8.742 6.426 5.779 154.067 20.575 157.316 22.159 16.644 12.178 8.729 6.446 5.780 159.424 164.248 22.161 20.578 16.641 12.174 8.713 6.468 5.781 166.425 170.054 22,162 20.581 16.638 12.171 8.702 6.484 5.780 172.287 22.163 20.584 177.662 16.636 12-167 8.589 6.500 5.779 179.970 22-165 184.050 20.587 6.512 16.635 12.154 8.680 5.778 186.421 22.166 20.590 192.445 16.634 12.159 8.671 6.524 5.778 194.898 201.336 22.168 20.593 16.635 12.154 8.663 6.534 5.779 203.877

	MACH	4 NO =	25.00	CONE	ANG	LE =	8	.00	A	NGLE	OF	AT	TACK	=	3.00
			5.4	0 500					<b></b> •						
1.0	ON	0		P FRE					PLA		ANG			••	0.4011
L/	KN	0 •	30.		56.	y	0.		120	•	150	١.	1	80.	S/RN
. 8	61 6	52-467	60.781	56.3	368	50.7	87	45	.68	4 4	2.22	<b>&gt;</b> 0	41.	008	1.431
1.1		57725	56.177	52.1		47.0			.42		9.3			233	
1.4		52.726	51.310	47.6		43.0			. 89		6.13			175	
1.8		6.021	44.774	41.5		37.6			.14		1.87			085	
2.4		39.579	38.479	35.6		32.3			.46		7.6			069	
3.1		34.136	33.146	30.6		27.6			. 26		3.77			286	
3.9		29.783	28.840	26.4		23.8			.68		0.4			065	
4.8		26.533	25.596	23.2		20.7			.78		7.6			353	
5.7		24.205	23.245	20.8		18.3			.51		5.48			183	
6.8	25 2	22.592	21.587			16.6			.77		3.78			489	
7.9	10 2	21.522	20.452	17.9	14	15.3			.44		2.45			166	
9.0	29 2	20.867	13.714	17.0	21	14.3	31	12	.42		1.42			134	
10.1	70 2	20.533	19.280	16.4	00	43.5	83	11	.62		0.61			321	
11.3	22 3	20.450	19.083	15.9	986	13.0	19	11	.00	1	9.97	7.0		671	
12.4		20.559	19.068		<b>'</b> 33	12.5	95	10	.50	3	9.44	+9	9.	146	13.161
13.6		20-817			04	12.2	79		.10		9.02	26	8.	718	14.321
14.7		21.196	19.432	15.5	72	12.0	48	9	.78	5	8.67	19		365	
15.8		21.686	19.762	15.6		11.6			.52		8.39		8.	073	16.598
16.9		22 • 27 8				11.7			. 31		8.15			830	
18.0		22.970	20.675			11.6			.14		7.95			626	
19.0		23.750	21.246	16.0		11.6			.01		7.79			454	
20.1		24.606	21.884			11.6			. 89		7.64			308	
21.0		25.523	22.580	16.6		11.6			.80		7.52			183	
22.2		26.679	23.477	16.9		11.7			.72		7.40			056	
23.1		27.669	24.262	17.3		11.7			•66		7.32			966	
24.8		28.664	25.071	17.7	-	11.8			.62		7.24	-		888	
24.9		29.649	25.892	18.1		11.9			•58		7.18			820	25.776
25.8		50.608	26.716	18.5		12.0			. 56		7.12			761	
26.6		31.527	27.533	18.9		12.1			• 54		7-07			708	
27.5		32-393	28.335	19.4		12.2			. 53		7.03			662	
28.3		33.194	29.113	19.8		12.3			• 53		7-00			622	
29.1		33.920	29.858	20.3		12.4			.53		6.97			587	
29.9 30.8		34.561 35.112	30.562	20.8	52.8	12.6			•53		6.94			556	30.854
31.6	_	35.566							.54		6.92			529	
32.4		35.921	31.815 32.349	21.8		12.9			• 56		6.90			506	32.511
33.3		36.177	32.813	22.8		13.1			•58 •60		6.88			486	
34.1		36.336	33.201	23.3		13.3			•63		6.87			470	34.195 35.056
35.0		36.403	33.507	23.8		13.6			.67		6.89			457 447	
35.9		36.382	33.728	24.3		13.8			.70		6.85			440	36.836
36.8		36.283	33.861	24.7		14.1			.74		6.85			437	
37.7		36 <b>-1-1</b> -5	33.901	25.2		14.3			.79		6.85			437	
38.7		35.893	33.873	25.6		14.5			. 83		6.58			440	
39.7		35.629	33.760	26.0		14.8			. 80		6.87			446	
40.7		35.341	33.579		2-3.	15.0	-		94		6.88			45'3	

8.00

ANGLE OF ATTACK =

3.00

CONE ANGLE =

MACH NO = 25.00

P FREE-STREAM AT PLANE ANGLES L/RN 0. 30. 60. 90. 120. 150 · 180. SZRN 42.096 34.986 33.287 15.412 26.778 9.019 6.901 6.473 43.071 43.235 34.698 32.999 27.008 15.700 9.085 6.918 6.491 44.221 34.432 6.514 44.428 32,688 27.170 16.000 9.155 6.939 45.426 45.653 34.202 32.380 27.259 9.230 6.961 16.308 6.540 46.669 46,928 34.010 32.089 27.275 16.521 9.308 6.985 6.570 47.951 48.245 33.857 31.826 27.221 16.939 9.392 7.011 6.604 49.281 49.616 33.741 31.599 27.105 17.258 9.482 7.040 6.643 50.666 51.051 33.661 31.413 26.935 17.577 9.579 7.071 6.686 52.115 52.560 26.724 33.611 31,269 17.892 9.684 7.103 53.638 6.733 54.154 33.587 31.169 26.486 18.195 9.799 7.138 6.786 55.248 55.844 33.583 31.109 26.235 9.926 18.480 7.176 6.843 56.955 57.646 33.594 31.085 25.987 18.738 10.066 7.216 6.905 58.775 59.566 33.617 31.089 25.757 7.259 6.973 18.957 10.221 60.714 7.304 61.562 33.651 31.115 25.561 19.127 10.387 7.042 62.729 63.635 33.691 31.153 25.402 19.243 10.565, 7.351 7.113 64.823 65.799 33.733 31.197 25.282 19.306 10.756 7.402 7.186 67.008 68.068 33.777 31.247 25.198 19.322 10.958 7.457 7.261 69.299 70.458 33.817 31.298 25.147 19.296 11.173 7.516 7..337 71.712 31.350 72.988 33.852 25.124 19.236 7.580 7.415 11.397 74.257 75.680 33.880 31.401 25.121 19.150 7.651 7.493 11.627 76.986 33.900 25.134 78.561 31.445 19.046 11.860 7.729 7.571 79.895 25.158 81.660 33.913 31.479 18.931 12.089 7.815 7.650 83.024 85.714 33.921 31.505 25.196 18.787 12.349 7.930 7.744 87.118 89.408 33.925 31.511 25 , 232 18.672 12.544 8.037 7.821 90.848 93.299 35.929 31.509 25.269 18.571 12.708 8.149 7.890 94.778 97.260 33.933 31.503 25.302 18.491 8.264 12.836 7.950 98.778 101.278 33.936 31.495 25.328 18.429 12.932 8.379 8.004 102.835 33.938 31.487 105.367 25.346 18.382 13.000 8.052 106.965 8.492 31.480 33.940 109.541 25.356 18.349 13.047 8.602 8.095 111.180 113.814 33.942 31.473 25.360 18.324 13.076 8.707 8.132 115.494 31.466 118,198 33.945 25.359 18.306 13.090 8.807 8.164 119.922 122.709 33.948 31.462 25.354 18.294 13.089 8.901 8.191 124.477 31.460 127.359 33.951 25.348 18.285 13.077 8.987 8.214 129.173 132.162 33.953 31.459 25.340 18.278 13.055 9.065 8.231 134.023 137-132 33.955 31.461 25.332 18.275 13.024 9.135 8.244 139.042 142.282 33.957 31.464 18.273 25.324 12.989 9.199 8.251 144 242 147.625 33.959 31.468 25.315 18.272 12.951 9.255 8.255 149.638 153.176 33.960 31.473 25.307 18.273 12.914 9.304 8.255 155.243 31.477 25.299 158-948 33.962 18,273 12.880 9.347 8.252 161.072 31.482 25.293 164.958 33.964 18.273 12.850 9.385 8.247 167.141 171.221 33.965 31.486 25.288 18.272 12.824 9.417 8.242 173.465 31.490 177.754 33.967 25.285 18.270 12.801 8.236 180.063 9.443 184.577 33.969 31.495 25.283 18.267 12.782 9.465 8.232 186.953 33.971 191.711 31.498 25.283 18.262 12.766 9.431 8.230 194.156 200.712 33.973 31.502 25.284 18.255 12.750 9,495 8.230 203.246

8.00 MACH NO = 30.00 CONE ANGLE = ANGLE OF ATTACK = P / P FREE-STREAM AT PLANE ANGLES L/RN Û. 30. 60. 90. 120. 150. S/RN 180. 87.239 80.908 65.546 .851 89.665 72.878 60.568 58.833 1.431 80.594 74.786 67.477 54.825 1.135 82.817 60.841 56.381 1.708 1.434 75.605 73.572 68.292 61.688 55.747 51.789 50.410 2.010 44.396 2.000 64.036 62.290 57.820 52.336 47.529 43.317 2.582 37.592 49.498 44.833 40.890 38.417 2.589 54.984 53.438 3.176 3.288 47.415 46.019 42.471 38.380 35.019 32.969 32.296 3.883 35.782 32.074 4.266 40.459 39.124 29.172 27.509 26.998 4.870 34.975 5.184 36.318 31.664 28.085 25.362 23.851 23.399 5.797 24.555 20.491 6.383 32.908 31.510 28.121 21.915 20.074 7.007 19.775 18.371 7.444 31.043 29.566 26.041 22.411 17.962 8.079 8.543 28.256 24.540 20.796 16.722 29.839 18.128 16.313 9.189 27.313 23.303 19.367 15.207 14.794 9.894 29.056 16.628 10.554 14.225 11.034 28.824 26,926 22.623 18.489 15.669 13.808 11.704 12.176 28.879 26.813 22.184 17.822 14.906 13.435 13.011 12.857 29.233 26.949 21.900 17.234 14.188 12.677 13.538 12.245 14.233 14.658 29.718 27.236 21.816 16.880 13.716 12.169 11.729 15.364 15.977 30.502 27.752 21.853 16.578 13.264 11.673 11.225 16.696 21.976 17.049 31.319 28.313 16.405 12.963 11,335 10.879 17.779 18.095 32-276 28.989 22.169 16.289 12.717 11.050 10.588 18.834 33.593 29.940 22.485 16.210 12.477 10.766 19.310 10.297 20.062 20.291 34.810 30.836 22.811 16.186 12.316 10.567 10.092 21.052 36.382 32.018 23.269 16.197 12.160 10.365 21.428 9.883 22.201 22.345 37.757 33.075 23.702 16.236 10.222 12.054 9.735 23.127 34.181 9.605 23.236 39.168 24.176 16.298 11.968 10.098 24.026 16.398 35.555 24.273 40-,874 24.791 11.885 9.970 9.470 25.073 36.721 42-.281 16.501 25.113 25.339 11.832 9.877 9.373 25.922 11.790 9.796 25.935 43.653 37.892 25.914 26.751 16.621 9.286 26.899 45.225 39.288 26.636 16.783 11.753 9.712 9.195 27.726 27.689 46,452 40.429 27.260 16.932 11.732 9.650 9.129 28.523 28.623 47.803 41.752 28.034 17.127 3.586 11.718 9.058 29.467 29.394 28.696 11.714 9.540 48.811 42.805 17.303 9.006 30.245 9.499 49.700 43.799 29.372 17.489 30.161 11.716 8.960 31.019 44.903 31.080 50.598 30.198 17.728 11.727 9.457 8.912 31.947 51.201 45.735 30.897 17.938 31.848 11.742 9.427 8.877 32.723 11.762 51.668 46.479 31.602 9.402 32.621 18.160 8.846 33.504 52.050 47.243 32.454 18.442 33.561 11.794 9.377 8.815 34.453 34.358 52.223 47.763 33.165 18.690 9.360 8.793 35.257 11.825 35.335 52.263 48.237 34.012 19.006 11.869 9.345 8.772 36.244 36.172 52.165 48.503 34.709 19.285 11.912 8.759 9.336 37.090 51.961 48.647 37.032 35.388 11.959 37.958 19.579 9.331 8.750 38.089 51.598 48.661 36.164 19.950 12.021 9.329 8.744 39.025 48.546 38.995 51.221 36.768 20.274 12.078 9.331 8.743 39.940 48.269 37.429 50.709 40.120 20.685 12.152 9.338 8.747 41.077 37.913 41.095 50.259 47.937 21.046 12.219 9.347 8.755 42.061

21.426

12.291

9.360

8.767

43.084

42.108

49.812

47.533

38.326

-MA	CH NO =	30.00	CONE ANGI	LE = 8.	00 ANG	LE OF AT	TACK =	3.00
			0 5055 6	TOTAM A	T 01 ANS	ANCLEC		
			P FREE-S		T PLANE	ANGLES		S/RN
L/RN	0.	30.	60.	90.	120.	150.	180.	37KN
43.384	49.302	46.982	38.710	21.908	12.386	9.379	8.789	44.372
44.485	48.925	46.507	38.923	22.326	12.470	9.399	8.811	45.484
45.613	48.602	46.045	39.033	22.754	12.558	9.421	8.239	46.623
47.010	48.287	45.531	39.029	23.280	12.671	9.450	8.877	48.034
48.217	48.087	45.152	38.920	23.728	12.772	9.477	8.915	49.253
49.729	47.917	44.769	38.675	24.274	12.904	9.513	8.969	50.780
51.049	47.828	44.516	38.391	24.731	13.023	9.546	9.019	52.113
52.434	47.779	44.327	38.053	25.185	13.154	9.581	9.075	53.511
54.193	47.763	44.181	37.603	25.716	13.328	9.626	9.150	55.287
55.753	47.777	44.122	37.215	26.133	13.490	9.668	9.220	56.863
57.755	47.818	44.114	36.762	26.585	13.709	9.722	9.314	58.885
59.506	47.868	44.149	36.424	26.899	13.910	9.770	9.396	60.652
61.308	47.929	44.207	36.140	27.144	14.126	9.819	9.481	62.472
63.550	48.006	44.293	35.870	27.340	14.408	9.883	9.588	64.737
65.497	48.074	44.372	35.709	27.426	14.662	9.941	9.681	66.703
67.528	48.140	44.454	35.598	27.446	14.935	10.004	9.775	68.753
70.092	48.211	44.553	35.526	27.394	15.285	10.087	9.892	71.343
72.353	48.260	44.635	35.508	27.297	15.595	10.164	9.992	73.626
75.242	48.303	44.727		27,132	15.985	10.266	10.114	76.544
77.820	48.326	44.792		26.964		10.362	10.219	
80.579	48.340	44.842		26.779	16.653	10.468	10.324	81.932
84.165	48.345	44.877		26.547	17.044	10.610	10.453	35.554
87.416	48.347	44.884		26.359	17.349	10.744	10.560	
90.830	48.349	44.876	35.810	26.192	17.618	10.886	10.659	
95.110	48.351	44.857		26.028	17.884	11.068	10.771	96.606 100.334
98.801	48.350	44.838	35.925	25.924	18.057	11.225 11.414		104.871
103.294	48.351	44.819		25.838 25.789	18.208 18.294	11.570		108.718
107.104	48.353	44.804	35.983 35.989	25.755	18.350	11.723		112.637
110.985	48.355	44.791		25.729		11.899		117.451
115.752	48.360	-44.778 =44.771		25.714	18.380	12.040	11.121	121.568
119.828 124.860	48.365 48.370	44.766	-	25.703	18.352	12.198		126.649
129.183	48.374			25.698	18.309	1-2.321		131.014
133.632		44.769		-	18.254			135.507
139.153	48.380	44.775		25.698	18.177	12.562		141.082
143.916	48.381			25.701	18.109	12.657	-	145.892
148.836	48.383			25.706	18.044	1-2.743		150.861
154.963	48.385	44.797		25.713		12.834		157.047
160.265	48.387			25.718		12.901	-	162.402
166.880	48.389			25.722	17.868	12.969		169.082
172.617	45.391			25.723	17.830	13.015		174.875
178.570	48.393			25.723		13.052		180.887
186.019	_			25.719	17.763	13.085	-	188.409
192.497	48.398			25.714	17.739	13.104		194.950
200.617	48.401	44.834	35.851	25.7.05	17.714	13.118	11.215	203.150

## NSW0/WQL/TR 75-45

MAC	4 40 =	3.50	CONF	ANGLE	=	9.0.	ANGLE	0F	ATT	ACK =	3-• O
			∩ Fe	E-STR				ANGL			
L/PN	3.	32.	•	50 •	96	•	120.	150	•	180.	<b>と</b> ヽゟИ
. 844	1.041	1.898	1.7		1.63			1.4		1.372	
. 943	1.927	1.883			1.61		1.479	1.38		1.351	1.511
. 992	1,950	1.905			1.63		1.499	1.40		1.370	1.564
1.157	1.959	1.915			1.65			1.41		1.386	1.583
1.324	1.945	1.971			1.64			1.41		1.384	1.883
1455	1.930	1.897			1.62		1.497	1.4		1.377	
1.622	1.913	1.867			1.81		1.485	1.39		1.368	2.232
1.905	1.874	1.831			1.58		1.462	1.38		1.352	
2.117	1.842	1.851			1.56		1.443	1.38		1.338	
2.347	1.898	1.768			1.53		1.423	1.34		1.324	
2.730	1.772	1.732			1.50		1.395	1.3		1.305	
3-010	1.753	1.713			1.48		1.377	1.3		1.292	
3.311	1.736	1.695			1.46		1.361	1.2		1.277	
3.802	1.716	1.675			1.44		1.342	1.27		1.258	
4-156	1.738	1.667			1.43		1.333	1.26		1.248	4.768
4.532	1.703	1.661			1.42		1.326	1.29		1.243	5.148
5.137	1.700	1.658			1.42		1.319	1.2		1.240	5.763
<u>5.• 567</u>	1.732	1.659			1.42		1.317	1.29		1.239	
5.021	1.725	1.661			1.41		1.316	1.25		1.238	
6:• 436	1.713	1.666			1.42		1.316	1.25		1.239	
7257	1.726	1.674			1.42		1.319	1.2		1.242	
7.796	1.727	1.681			1.42		1.322	1.2		1.245	
9-342	1.735	1.689			1.43		1.326	1.2		1.249	
9. 221	1.748	1.700			1.44		1.333	1.27		1.257	
9.837	1.757	1.708			1.44		1.338	1.2		1.262	
10.477	1.765	1.716			1.45		1.343	1.2		1.267	
11.433	1.777	1.728			1.45		1.350	1.2		1.275	
12.184	1.785	1.735			1.46		1.355	1.2		1.280	
12.911	1.792	1.742			1.47		1.360	1.3		1.293	
14.349	1.893	1.752			1.47		1.367	1.3		1.297	
14.840	1.839	1.758 1.753			1.48		1.371 1.375	1.3		1.301	
15,658 16,935	1.815	1.771			1.49		1.381	1.3		1.307	
17: 820	1.823 1.828	1.776		643	1.49		1.384	1.3		1.311	18.632
13.734	1.833	1.788		647	1.50		1.388	1.3		1.314	19.527
23, 158	1.839	1.786		652	1.59		1.392	1.3		1.318	20.969
21, 144	1.842	1.790			1.50		1.395	1.3		1.321	21.967
22,159	1.346	1.793		659	1.51		1.398	1.3		1.323	22.395
23.205	1.849	1.796		662	1.51		1.400	1.3		1.326	24. 54
24.833	1.853	1.851		666	1.51		1.403	1.3		1.329	25.702
25-958	1.856	1.883		668	1.51		1.405	1.3		1.330	26.841
27.116	1.858	1.875		6 <b>71</b>	1.52		1.407	1.3		1.332	28.114
28:917	1.861	1.829		674	1.52		1.410	1.3		1.334	
30.161	1.863	1.811		675	1.52		1.41-1	1.3		1.336	
31: 442	1.855	1.812		677	1.52		1.413	1.3		1.337	32.393
<b>△ T</b> :4 44 €	T 4 () (1 )	Y 4 () Y ()	.L. •	<b>.</b> .	x + > 0	•	~ T ~ T ~ U				

8	1ACH MO =	3.59	PONE ANGL	.स = 9 <b>.</b> ।	03 ANGL	E OF ATT	VCK =	3.0.
		D /	P FPEE-01	DEAM A	T PLANE	ANGLES		
L/RN	ı ;.	31.		90.	12J.	150.	4.9.0	SZRN
CYNY	, j.	J ⊷	0	90•	123.	1904	188.	21.64
33.43.2	1.867	1.815	1.688	1.529	1.415	1.355	1.339	34.438
34.857		1.816	1.681	1.531	1.416	1.356	1.340	35.30.
36.222		1.818	1.683	1.532	1.417	1.357	1.341	37.233
33.423		1.819	1.685	1.534	1.418	1.358	1.342	39.451
39.944		1.820	1.686	1.535	1.419	1.359	1.343	41.002
41.513		1.821	1.687	1.536	1.420	1.360	1.343	42.587
47.949		1.823	1.689	1.537	1.421	1.361	1.344	45. 55
45.634		1.823	1.689	1.538	1.422	1,361	1.345	46.762
47.371		1.824	1.690	1.539	1.423	1.352	1.345	48.521
49.151	1.877	1.825	1.691	1.549	1.424	1.363	1.346	50.333
51.95	1.877	1.826	1.692	1.541	1.425	1.363	1.347	53.157
53.8A3	1.879	1.826	1.693	1.541	1.425	1.364	1.347	55.113
55.873	1.878	1.827	1.693	1.542	1.426	1.364	1.347	57.129
58.979	1.873	1.827	1.694	1.543	1.426	1.365	1.348	60.274
51.134	1.879	1.828	1.695	1.543	1.427	1.365	1.348	62.453
63.352		1.₽828	1695	1.544	1.427	1.366	1.349	64.701
66.316		1.828	1,696	1.545	1.428	1.366	1.349	68.208
43.218		1.829	1-,595	1.545	1.428	1.367	1.349	70.545
71.697		1.829	1.697	1.545	1.429	1.367	1.359	73.15.
75.565		1.829	1.697	1.546	1.429	1.367	1.350	77. 67
78.249		1.830	1-693	1.546	1.429	1.368	1.350	79.784
81.912		1.83)	1. 698	1.547	1.430	1.368	1.350	82.588
85.342	_	1.63€	1-698	1.547	1.430	1.368	1.351	86.965
89.341	_	1.830	1.699	1.547	1.430	1.368	1.351	90.002
91.437		1.830	1.599	1.547	1.430	1.368	1.351	93.136
96.279		1.831	1.699	1.548	1.431	1.369	1.351	98.23.
97.624		1.831	1-699	1.548	1.431	1.369		101.425
133.086	-	1831	1.735	1.548	1.431	1.369		104.931
125.664		1 • 8 3 1	1.799	1-549	1.431	1.369		108.551
112.242		1.831	1.750	1-,549	1.431	1.359		114.201
115.115		1.831	1.700	1.549	1.432	1.359		118.122
		1-831	1.763	1.549	1.432	1.370		122.17.
125.357 131.639		1-931		1.550 1.550	1.432 1.432			128.492
135.163		1.831 1.831	1.4700 1.4703			1.370		132.878 137.457
142.148		1.831	1703	1.550 1.550	1.432 1.432	1.370 1.370		144.48
146.996		1.831	1.706	1.550	1.432	1.370		149.388
152.001		1.331	1.700	1.551	1.432	1.370		154.456
157.818		1.331	1700	1.551	1.432	1.370		162.769
165.242		1.831	1.708	1.551	1.433	1.370		167.361
173.843		1.831	1-700	1.551	1.433	1.370		173.532
179.590		1831	1.700	1.551	1.433	1.370		182.788
185.661		1-831	1.703	1.551	1.433	1.370	-	188.534
191.929		1.831	1-7-00	1.551	1.433	1.370		194.881
231.718		1.831	1.703	1.551	1.433	1.370		254.792

41	= 0M HCA	5.35	COLME	ANGLE	=	9.03		ANGLE	0F	ATTA	CK =	3.00
		P /	n ka	EE-STR	EAM	ĄT	P	LANE	ANGL	.ES		
<b>「</b> \5%	0-•	30.		60.	9(	•	1	20	150	•	180.	S/8K
.844	3.306	3.226			274			496	2.32		2.266	1.414
.942	3.249	3.168			2.68				2.26		2.210	1.514
1.059	3.234	3.155			2.68			444	2.27		2.221	1.532
1.194		3.:95			2-63				2.24		2.188	1.769
1.433		2.983			2.54			31-9	2.18		2.117	2.11
1.614		2.898			2.47				2.11		2.065	2.194
1.919		2.765			2.39				2.02		1.981	2.502
2.143		2.671			2.28			090	1.98		1.923	2.729
2.516	2.696	2.540			2.15			988	1.87		1.838	3.107
2.790		2.467			2.09			924	1.81		1.781	3,384
3.239		2.372			2.00			940	1.73		1.702	3.339
3.734		2.295			1.93			767	1.66		1.635	4. 745
4.090	2.323	2.256			1.88			725	1.63		1.596	4.7.1
4.663	2.231	2.212			1.83			672	1.57		1.546	5.281
5.071	2. 252	2.192			1.8			644 64-4	1.54		1.518	5.693
5.723 6.477	2.248	2.174			1.77			611 504	1.51		1.483	6.750
5.911	2.245 2.253	2.175 2.172			1.76			594	1.49		1.465	6.814
7.488	2.259	2.178			1.79 1.74			577 56:0	1.47		1.446	<b>7</b> 546 8•.969
A. 205	2.278	2.178			174			569 563	1.49		1.427	8 <sub>-</sub> 857
3.048	2.30-3	2.215			1.79			561	1.45		1.423	9.721
3.635		2.231			1.75			563	1.45		1.423	10.315
10.555		2.253			1 76			568	1.45		1.425	11.246
11.195		2.278			17-7			573	1.45		1.428	11.894
12.197		2.307			1.7			582	1.46		1.435	12.938
12.897		2.327			1.8			589	1.47		1.440	13.613
13.933		2.356			1.8			600	1.48		1.449	14.717
14.741		2.374			1.82			609	1.49		1.456	15.484
15.927		2.491			1.84			621	1.5		1.467	
16.746		2.418			1.8			630	1.5		1.474	
13.007		2.441			187			642	1.5		1.485	18.791
19.338		2.462			1.8			654	1.53	31	1.496	29.198
23.197	2.583	2.474	2	·20J	1.89	94			1.5	3 <b>8</b> -	1.503	21.308
21.553	2.631	2.491			1.9			67-2	1.54		1.513	22.391
22.436	2.511	2.502	2	.225	1.9:	15	1.	678	1.59	54	1.520	23.336
23.939	2.625	2.515	2	.238	1.92	25	1.	688	1.56	53	1.529	24.788
24.909	2.633	2.524	2	.246	1.9	3-3	1.	693	1.5	8 6	1.534	25.779
25.412	2.645	2.535	2	257	1.9	43	1.	701	1.57	76	1.542	27-331
27.439	-	2.542			194			705	1.58		1.547	28.341
22.017		2.551			1.99			713	1.58		1.553	29.938
₹0.642		2.559			196			719	1.59		1.559	31.583
31.753		2.564			1.98			723	1.5		1.563	32.739
33.464		2.573			1.97			729	1.6		1.567	34.441
34.636		2.574			1.9			732	1.5		1.57û	35.528
36.444	2.687	2.586	2	. 334	1.3	35	1.	737	1.6	i 8	1.575	37.458

<b>M</b> /	1CH NO =	5.00	CONT AND	SLE = 9.	0.3 ANG	LE OF AT	TACK =	3.0.
		P /	P FREE-S	T7-84 4	·			
L/RN	<b>ũ</b> •	30.				ANGLES		
_, _,	J •	<b>00</b> •	60.	90.	120.	150.	180.	SZRN
37,635	2.689	2.583	2.307	4 600	4 740			
39.602	2-692	2.586	2.312	1.988	1.740	1.611	1.577	
43.919	2.694	2.589	2.312	1.993	1.744	1.514	1.581	•
4%.956	2.696	2.591	2.319	1.996	1.747	1.616	1.583	
44.358	2.697	2.593	2.322	2.000	1.750	1.619	-	
45.528	2.693	2.595	2.325	2.002	1.753	1.621	1.587	
43.783	2.699	2.596	2.365	2.006	1.756	1.624	1.590	
50.336	2.699	2.597	2.328	2.009	1.759	1.627	1.592	
52.742	2.708	2.598	2.330	2.011	1.761	1.628	1.593	
54.400	2.703	2,598	2.332	2.014	1.763	1.630	1.595	
56.970	2.701	2.599	2.334	2.015	1.765	1.632	1.597	<b>55.</b> 638
58.741	2.701	2.599	2.335	2.618	1.767	1.634	1.598	58.240
51.488	2.701		2.336	2.019	1.769	1.635	1.599	60.733
63.381	2.781	2.600	2.338	2.021	1.776	1.636	1.601	62.814
65.318	2.702	2.600	2.338	2.023	1.772	1.638	1.662	64.731
69.375	2.702	2.691	2.339	2.024	1.773	1.639	1.603	67.764
71.484	2.702	2.631	2.340	2.026	1.775	1.640	1.604	70.800
74:-755		2.601	2.341	2.027		1.641	1.605	72.934
77.011	2.712 2.712	2.601		2.029		1.642	1.606	76.247
89.512	-	2-661	2.342	2.030	1.778	1.643	1.607	
82327	2.732	2.681	2.342	2.031	1.779	1.644	1.607	82. 76
3 6 67 5	2.702	2.651	2.342	2.032	1.780	1.645	1.608	84.526
89.260	2.782	2.601	2.343	2.633	1.780	1.646	1.609	88.315
93.272	2.793	2.601	2.343	2.634	1.781	1.646	1.609	
95.639	2.793	2.601	2-343	2.035	1.782	1.647	1.618	
109.335	2.703	2.601	2.343	2.035	1.782	1.647	1.610	
104,810	2.793	2.601	2.343	2.036	1.783	1.648		102.145
104,010	2.703	2.681	2.343	2.037	1.784	1.648		166.676
112.690	2.703	2.601	2.343	2.037	1.785	1.649		109.802
115.936	2.704	2.601	2-343	2.038	1.785	1.649		114.654
121.127	2.704	2.631	2.343	2.038	1.786	1.649		118.361
124.668	2.704	2.631	2.342	2-938	1.787	1.650		123.197
	2-704	2.631	2.342	2.038	1.787	1.658		126.781
133-163	2.734	2-602	2.342		1.788	1.650		132.345
133.954	2.704	2.632	2.342	2.839	1.788	1.650		136.184
139.839	2.704	2.6.2	2.342	2.033	1.789	1.651		142.142
145-972	2.705	2.602	2.342	2.039	1.790	1,651		148.351
150.202	2.735	2-602	2.342	2.039	1.790	1.651		152.534
156.771	2.705	2-602	2.342	2.039	1.790	1.651		159.283
151.331	2.705	2.602	2.342	2.039	1-,791	1.651		163.371
168334	2.705	2.602	2.342	2.039	1791	1.651		170.392
173-187	2.705	2.602	2.342	2.039	1.791	1.652		175.905
18] -720	2.795	2.602	2.342	2.039	1.792	1.652		183.532

2.039

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1.613 183.532

1.613 188.795

1.613 196.964

1.613 205.476

2:.602

2-602

2-603

2.705

2-706

2.706

185.917

193.986

232.394

2.342

2.341

2.341

М	OCH NO =	10.00	CONE ANGI	E = 9.0	J ANGLE	OF AT	TACK =	3.00
		٠.	> FPEE-S	TOSAM AT	PLANE	ANGLES		•
	a			90.	120.	150.	180.	SIRN
LZRN	ข.	30.	60•	90.•	TE Q •	1704	2000	
01.1.	11.249	10.956	10.187	9.212	8.318	7.709	7.495	1.414
.844	10.862	13.579	9.835	8.892	8.027	7.440	7.235	1.562
.990 1.181	19.350	13.080	9.374	8.485	7.678	7.136	6.947	1.755
1.483	9.759	9.584	8.839	8.006	7.254	6.751	6.576	1.980
1.748	8.918	8.632	8.074	7.320	6.649	6.206	6.053	2.333
2.047		8.875	7.503	6.803	6.188	5.788	5.650	2.632
2.501		7.295	6.765	6.132	5.591	5.249	5.135	3. 92
2.834		6.796	6.287	5.687	5.184	4.869		
7.451	6.419	6.224		5.163	4.698	4.413	4.320	4.154
3.917		5.876	5.384	4.826	4.378	4.111		
4.589		5.510	5.012	4.456	4.017	3.762		5.206
5.125	5.508	5.302	-	4.232	3.795	3.543		5.750
5.882	5.315	5.099		3.994	3.552	3.301	3.224	6.515
5.677		4.967		3.813	3.361	3.107	3.030	7.320
7.295				3.708	3.246	2-988	2.910	7.945
3.141				3.602	3.123	2.859	2.779	- <b>8.</b> 803
8.791					3.050	2.780	2.699	9.461
3.674	-					2: 695	2.611	10.354
13.347					2.929	2.643	2.557	11.35
11.254				3.438	2.883	2.587	2.499	11.954
11.942					2.857	2.553	2.463	12.651
12.868					2.832	2.518	2.425	13.588
13.567		_		_	2.820	2.497	2.402	
14.505				3.464	2.811	2.475	2-378	
15.212				3.485	2.809	2.464	2.364	
15.160				3.517	2.811	2.453	2.350	_
17.111				3.555	2.818	2.448	2.342	
17.827			4.712	3.586	2.825	2.446	2.338	_
18.786		~	4.804	3.631	2.839	2 • 447	2.336	
19.508			4.874	3.666	2.852	2.450	2.336	
23.475			4.967	3.715	2.870	2.456	2.339	
21.205	-		5.035·	3.753	2.835	2.462	2.343	
22.185			5.127	3.804				23.321
22.928			5.193	3.843	2.926	2.480	2.357	
23.930			5.280	3.896	2.950	2.493	2.368	
24.693			5.343	3.935	2.970	2.504	2.377	
25.728			5.425	3.988	2.997	2.520	2.390	
26.522			5.484	4.028	3.618	2.532	2.401	
27.605				4.081	3.046	2.550	2-417	-
28.724			5.631	4.133	3.076	2.568	2.434	
23.591				4.172	3.698	2.583	2.447	
30.786				4.223	3-129	2.604	2.467	
31.717		7.066		4.261	3.152	2.620	2.482	
33.619				4.310	3.183	2.642	2.503	
34. <u>0</u> 23	7-• 513	7.095	5.888	4.347	3.207	2.658	2.519	35.007

МД	.CH *10 =	10.00	CONE ANG	LF = 9.	ANG!	LE OF AT	TACK =	3.00
		D /	0 5055 0					
L/RN	J .	30.	P FREE-S			ANGLES		
	5.	აყ•	60.	90•	120.	150.	180.	S/RN
35.437	7.503	7.096	5.933	4.394	3.239	2.682	0 540	76 470
36.551	7.493	7.092	5.961	4.429	3.263	2.699	2.542 2.560	36.439
38.113	7.478	7.082	5.990	4.473	3.235	2.723	2.584	37.566 39.148
39.349	7.467	7.072	6.006	4.506	3.318	2.741	2.663	40.399
41.091	7.452	7.058	6.019	4.547	3.350	2.765	2.628	42.163
42.473	7.441	7.048	6.023	4.577	3.373	2.783	2.647	43.562
44.427	7.428	7.035	6.022	4.614	3.404	2.807	2.672	45.541
46.520	7.416	7.623	6.017	4.649	3.434	2.831	2.697	47.663
48.191	7.403	7.015	6.011	4.672	3.457	2.848	2.716	49.351
50.532	7.400	7.005	6,002	4.698	3.485	2.870	2.739	51.722
52.354 54.873	7.396	6,999	5.997	4.715	3.506	2.885	2.755	53.566
56.833	7.391	6.993	5.989	4.731	3.532	2.994	2.775	56.117
59.544	7.389 7.388	5.989	5.984	4.740	3.550	2.918	2.789	58.101
61.653	7.300 7.388	6.985	5.978		3.573	2.935	2.807	60.346
64.569	7.389	6.983	5.974	4.751	3.590	2.948	2.818	62.981
66.837	7.393	6.981 6.981	5.968	4.754	3.610	2.963	2.832	65.934
69.974	7.392	6.981	5.965 5.960	4.754	3.625	2.974	2.842	68.230
72.413	7.393	6.982	5.958	4.754	3.642	2.988	2.854	71.406
75.785	7.395	6.983	5.954	4 • 754 4 • 753	3.654	2.998	2.861	73.875
79.381	7.397	6.984	5.952	4 • 7-5.3 4 • <b>7</b> -52	3.668	3.010	2.870	77.29
82.634	7.398	6.984	5.950	4.751	3.680	3.021	2.878	80.949
85.813	7.400	6.985	5.948	4.750	3.688 3.696	3.030	2.884	83.516
	7.401	6.986	5.947	4.748	3.701	3.040 3.047	2.890	87.443
92.816	7.493	6.987	5.946	4.746	3.70.6	3.056	2.895 2.900	
95.976	7.404	6.988	5.946	4.745	3.709	3.062	2.903	
103.345	7.486	6.989	5.945	4.742	3.713	3.070		162.156
103.743	7.407	6.989	5.944	4.741	3.716	3.075		165.596
108.443	7.408	6.990	5.943	4.738	3.719	3.081		110.354
112.097	7.409	6.991	5.943	4.737	3.720	3.985		114.154
117.152	7.413	6.992	5.€942	4.734	3.723	3.090		119.172
121.083	7.411	6.992	5:•942	4.733	3.724	3.093		123.152
126.520 132.188	7.412	6.993	5.942	4.731	3.725	3.096		128.657
136.598	7.413	6.994	5.941	4.729	3.726	3.099		134.396
142.697	7.413	6.994	5.941	4.728	3.727	3.101		138.860
147.441	7.414 7.415	6.995	5.941	4.726	3.727	3.103		£45.135
154.003	7.415	6.996 6.006	5.941	4 • 7 2 5	3.7.27	3.105		149.838
159.108	7.415	6.996 6.997	5. <u>÷</u> 941	4.724	3.727	3.106		156.482
166.168	7.416	6. 998	5.941 5.042	4.722	3.7.27	3.108		161.658
171.661	7.416	6.998	5.942 5.942	4.721	3.727	3 • 110.		168.799
179.259	7.417	6.999	7•942 5•942	4.720	3.7-27	3.111	2.922	174.360
185.170	7.417	6.999	5.942	4 • 7 <u>1</u> 9 4 • 718	3.7.26	3.112		182.353
193.346	7.417	7.000	5.943	4 • 7 <u>1</u> • 7 4 • 7 <u>1</u> • 7	3.726 3.725	3.113		37 י 188
201.871	7.418	7.000	5 <sub>-943</sub>	4.716	3.724	3.115		L96.315
_	· •		2 <del>1</del> . 2 T ()	A 1 1 T O	3+164	3.116	2.925 2	204.947

1	MA-CH NO =	15.60	CONF AND	SLE = 9.	00 ANG	E OF AT	TACK =	3.0
		D /	P FREE-S	TOTAM A	T PLANE	ANGLES		
<b>L /</b> RI	N 3	38.			120.	150 •	180.	SZRN
L/~!	N 3.	~ ७ •	60.	90.	T < A +	190 •	100.	37 KN
.84	4 24.473	23.825	22.131	19.982	18-015	16.676	16.208	1.414
1.04		23.572	2-0-101	18.954	17.109	15.861	15.425	1.518
1.24		21.331	19.816	17.913	16.191	15.038	14.637	1.817
1.63		19.624	17.675	16.000	14.505	13.515	13.171	2.217
?.31		17.164	15.934	14.428	13.198	12.248	11.951	2.603
2.45		15.391		12.910	11.758	11.028	10.784	3.149
3.09		13.546	12-493	11.274	10.261	9.633	9.424	
3.67		12.332	11.315	10.159	9.223	8.663	8.483	
4.30		11.380	10.367	9.237	8.343	7.823	7.661	
5.15			9.465	8.335		6.965	6.812	5.784
5.83		10.802	8.932	7.783	6.909	6.419	6.270	
6.83		9.581	8.450	7.258	F. 369	5.876	5.727	
7.62			8.183	6.943		5.533	5.382	8.276
9.42		9.254	7.991	6.700	5763	5.254	5.100	9.186
9.43			7.845	6.475		4.975		
10.25		9.244	7-787	6.345	-	4.796	4.636	
11.67		9.325	7.771	6.252		4.648	4.485	11.769
12.37		9.485	7.799	6.175	5070	4.498	4.330	
12.90		9.639	7.853	6.141	4.989	4.400	4.228	
13.91		9.872	7.950	6.124	4.913	4.301	4.123	14.552
14.71		10.082	8.348	6.127	4.867	4.237	4.055	15.461
15.50	_	19.319	8.150	6.143	4.833	4.184	3.997	
16.48		10.618	8.318	6.178	4.803	4.131	3.938	17.245
17.24	_	13.879		6.215	4.7.99	4.097	3.900	
18.00		11.150	8.604	6.260	4.780	4.069	3.869	18.787
18.93		11.522	8.800	6.324	4.778	4.043	3.837	
17.65	_	11.784	8.965	6.382	4.781	4.027	3.817	
20.57		12.139	9.178	6.450	4.791	4.013	3.798	21.388
21.28	_		9.355	6.527	4.802	4.005	3.786	
22.00		12.696	9.534	6.598	4.817	4.000	3.777	
22.88		13.628	9.762	6.692	4.839	3.998	3.770	
23.59		13.282	9.945	6.771	4.859	3.998	3.767	
24.38					4.882			
25.18		13.833	16.358	6.958	4:-913	4.037	3.767	26. 62
25.93		14.038	15.540	7.046	4.941	4.914	3.770	26.787
25.53		14.193	1.0.729	7.137	4.970	4.023	3.775	27.521
27.55			16.940	7.254	5 • 010	4.036	3.784	28.453
28.30	-	14.528	11.112	7.35û	5.044	4.048	3.7-92	
23.26			11.318	7.474	5.390	4.066	3.805	
30.05		14.743	11.476	7.575	5.129	4.082	3.818	
30.85		14.793	11.626	7.676	5.170	4.100	3.832	31.811
31.92	9 15.772	14.827	11.798	7.809	5.224	4.125	3.852	32.878
32.79	6 15.733	14.828	11.922	7.917	5.27.0	4.146	3.870	33.765
33.70	4 15.582	14.811	12.631	8.025	5.319	4.178	3 • 8 90	34.683
34-88		14.768	12.145	8.161	5.381	4.202	3.918	

MA	СН ИО =	15.08	SONE ANG	L= 9.	DJ ANGL	E OF ATT	TACK =	3.0
		2.4	0 5055 6	TOPAM A	T PLANE	ANGLES		
	2		P FREE-S	-	120.	150 ·	180.	3/RN
L/RN	0 •	39.	6 0-•	90•	1200	1704	100.	57 7411
35.871	15.542	14.719	12,216	8.271	5.434	4.230	3.943	36.877
37.165	15.459	14.645	12.277	8.407	5.502	4.267	3.977	38.188
38.255	15.394	14.581	12.305	8.516	5.559	4.299	4.007	39.291
39.399	15.334	14.514	12.314	8.623	5.618	4.333	4.039	40.450
40.903	15.268	14.433	12.331	8.753	5.694	4.377	4.083	41.972
42.164	15.225	14.375	12.275	8.851	5,756	4.414	4.120	43.249
43.485	15.188	14.323	12.239	8.943	5.820	4.452	4.159	44.587
45.232	15.154	14.263	12.132	9.047	5.901	4.502	4.211	46.355
46.716	15.135	14.236	12.132	9.118	5.968	4.543	4.255	47.358
48.695	15.129	14.205	12.067	9.191	6.054	4.595	4.312	49.862
53.389	15.114	14.189		9.236	6.125	4.639	4.360	51.577
52.190	15.113	14.180	11.972	9.266	6.197	4.683	4.409	53.403
54.569	15.117	14.177		9.286	6.288	4.737	4.470	55.809
56.587	15.123	14.183	11.896	9.289	6.360	4.781	4.519	57.852
5-3 - 7-2 3	15.131	14.185		9.282	6.431	4.825	4.567	
61.572	15.142	14.194		9.266	6.516	4.880	4.626	62.899 65.389
64.022	15.151	14.233		9.247	6.580	4.925	4.671 4.716	68.333
65.642	15.160	14.212		9.227	6.639	4.970 5.026	4.766	71.584
70.150	15.170	14.223		9.231	6.701 6.741	5.068	4.801	74.498
73-028	15.178	14.232		9.183 9.164	6.779	5.118	4.837	78.185
76.670	1-5.197	14.240		9.164	6.801	5.155	4.862	81.180
73.627	15.192	14.245		9.139	6.817	5.190	4.884	84.222
82.633	15.196	14.249 14.252		9.126	6.831	5.230	4.957	88.1ú8
86.470 89.617	15.201 15.203	14.253		9.118	6.838	5.258	4.923	91.294
92.844	15.205		-	9.110	5.843	5.283	4.936	94.561
97.035	15.267			9.103	6.847	5.310	4.95 û	98.774
169.451	15.228			9.098	6.849	5.328		182.262
104.924	15.210	14.255		9.094	6.850	5.347	4.966	106.791
108.650	15,211			9.091	6.849	5.360		110.564
112.523	15.211		_	9.088	6.848	5.370		114.486
117.594	15.212	-		9.185	6.845	5.380		119.519
121.852	15.213			9.083	6.842	5.387		123.931
126.339	15.213	14.256	11.858		6.839			128.444
132.190	15.214	14.257	11.856	9.079	6.835	5.400		134.397
137.167	15.215	14.258		9.077	6.832	5.495		139.436
143.769	15.216			9.€74	6.828	5.416		146.121
149.330	15.217		_	9.071	6.825	5.414		151.811
155.314	15.218			3.069	6.823	5.418		157.909
163.045	15.219			9.066	5.821	5.422		165.637
169.496	15.220			9.664		5.425		172,159
175 - 194	15.221			9.062		5.428		178 <u>.</u> 950 187.793
184.928	15.222			9.059		5.431		195.171
192.216	15.222			9.657		5 • 43 3 5 • 43 5		264.792
291.718	15.223	14.271	11.858	9.055	6.812	<b>⊅•₹3</b> 5	7 0 70 1	-U-TE-1 -7 E

MACH NO = 20.00 CONE ANGLE = 9.03 ANGLE OF ATTACK = 3.00

		P /	P FREE-S	TREAM A	T PLANE	ANGLES		
L/RN	0 • `	30.	60.•	90.	120.	150.	180.	SZRN
.844	42.986	41.843	38.858	35.658	31.590	29.230	28.405	1.414
1.105	39.918	38.859		32.608	29.439	27.305	28.561	1.679
1.385	36.712	35.734		3ú.003	27.131	25.215	24.548	1.962
1.811	32.414	31.538	29.285	26.504	24.044	22.428	21.868	2.394
2.329	28.257	27.476	25.469	23.056	20.983	19.663	19.220	2.917
2.941	24.758	24.035	22.195	20.040	18.238	17.116	15.741	3.537
3.795	21.463	20.768	19.023	17.050	15.465	14.524	14.223	4.402
4.594	19,496	18.793	17.051	15.129	13.626	12.760	12.491	5.211
5.458	18.115	17.385	15.598	13.668	12.194	11.362	11.107	6.185
6.371	17.196	16.421	14.553	12.576	11.694	10.272	10.624	7.016
7.318	16.632	15.799	13.819	11.765	10.253	9.424	9.175	7.969
8.287	16.345	15.439	13.319	11.165	9.608	8.765	8.511	8.350
9.466	16.282	15.274	12.954	10.650	9.024	8.157	7.898	10.144
10.452	16.409	15.307	12.799	10.351	8.655	7.763	7.498	11.142
11.434	16.658	15.457	12.746	10.149	8.367	7.447	7.176	12.136
12.407	17.000	15.696	12.774	9.999	8.142	7.192	6.914	13.122
13.367	17.418	16.004		9.911	7.967	6.985	6.699	14.393
14.310	17.905	16.371	13.001	3.867	7.832	6.817	6.523	15.348
15.415	18.574	16.883	13.217	9.857	7.710	6.655	6.352	16.167
16.312	19.195	17.364	13.433	9.878	7.636	6.548	6.237	17.375
17.188	19.864	17.889		9.919	7.581	6.459	6.142	17.962
1-8.041	20.568	18.450	13.948	9.978	7.542	6.387	6.062	18.826
18.874	21.292	19.048	14.242	10.051	7.515	6.328	5.996	19.669
19.687	22.023	19.648		10.137	7.500	6.279	5.941	20.492
20.641	22.890	20.389	14.960	10.256	7.494	6.233	5.887	21.458
21.419	23.590	21.036	15.312	10.365	7.497	6.203	5.850	22.246
22.185	24.256	21.614	15.676	10.484	7.507	6.179	5.819	23.322
22.942	24.878	22.205	16.051	10.612	7.523	6.160	5.794	23.788
23.693	25.448	22.770	16.433	16.748	7.544	6.146	5.774	24.548
24.440	25.957	23.305		10.892	7.571	6.137	5.758	25.304
25.335	26.481	23.894	17.289	11.075	7.608	6.131	5.₌744	26.211
25.084	26.839	24.336	17.681	11.235	7.645	6.130	5.736	26.969
26.839	27.125	24.727	18.071	11.403	7.686	6.132	5.732	27.733
27.603	27.338	25.062	18.456	11.578	7.732	6.138	5.731	28.506
28.379	27.488	25.339	18.834	11.760	7.782	6.147	5.733	29.292
29.171	27.557	25.554	19.201	11.950	7.836	6.159	5.738	30:394
30.148	27.569	25.731	19.622	12.188	7907	6.179	5.748	31. 84
30.989	27.520	25.811	19.951	12.395	7.972	6.198	5.761	31.935
31.859	27.425	25.832	20.255	12.609	8.041	6.222	5.777	32.815
32.755	27.294	25.801	28.527	12.830	8.115	6.248	5.796	33.723
33.682	27.134	25.721	20.762	13.857	8.193	6.279	5.820	34.661
34.645	26.957	25.601	20.956	13.295	8.276	6 •313	5.847	35.636
35.855	26.735	25.413	21.130	13.576	8.383	6-358	5.885	36.362
36.918	26.556	25.232	21.221	13.819	8.478	6.401	5-922	37.938
38.025	26.392	25.044	21.262	14.562	8.577	6 • 447	5.964	39.159

M	ACH NO =	20.00	CONE AND	SLE = 9	9.00 A	NGLE OF	ATTACK =	3 • QÜ
		D /	P FREE+S	STOE AM	AT PLA	ANE ANGL	FC	
L/RN	0.	30.	60.	90				SZRN
	•	36.	00.	70	• 100	. 100	. 100.	37 ((1
33.171	26.251	24.861	21.256	14.30	1 8.68	30 6.49	6 6.009	40.219
40.362		24.691	21.207	14.53				41.425
41.606		24.543	21.120	14.75				42.685
43.181		24.398	20.977	15.00				44.279
44.573	25.916	24.336	20.835	15.19	7 9.17	78 6.74	0 6.254	45.688
46.047	25.891	24.241	20.682	15.36	3 9.30	6.80	7 6.326	47.181
47.617	25.881	24.201	20.530	15.50	1 9.44	44 6.87	8 6.404	48.771
43.270		24.184	20.390	15.60				50.444
50.990		24.184	28.271	15.67				52.185
53.157		24.199	20.157	15.71				54.379
55.063		24.219	20.088	15.71				56.309
57.077		24.244	20.040	15.68				
59.213		24.272	20.013	15.64				60.511
61.492		24.303	26.001	15.58				
63.935		24.334	20.002	15.51				
67.114		24.367	20.015	15.42				68.513
69.930 72.874		24.390	20.032	15.36				71.362 74.342
7-5.847		24.416 24.416	20.052		-			77.352
78.839		24.421	26.093	15.22				80.381
81.859		24.422	20.110	15.19				83.439
85.534		24.421	20.125	15.17				
88.651		24.420	26.134	15.15				90.316
91.829		24.418	20.140	15.14				
95.078	_	24.416	20.142	15.14				
98.408		24.414	20.143	15.13				
101.829		24.412	20.142	15.13				163.558
196.071	26.124	24-410	20.139	15.13	1 11.23	11 8.50	4 7-829	187.953
109.732	26.125	24.409	20.135	15.13	1 11.19			111.659
113.519		24.409	26.132	15.13				115.493
117.443		24.409	20.128	15.13				119.466
121.517		24.410	20.124	15.13			_	123.591
125.754								1.27.881
131.072		24.413	20.116	15.13				133.265
135.718		24.415	26.112	15.13				137.967
149.572		24.417		15.13				142.384
145.657		24.419	20.107	15.12				148.732
150.992 156.599		24.421 24.423	20.106 20.105	15.12 15.12				153.434 159.111
163.723		24.425	26.104	15.11				166.324
17-0.623		24:427	20.104	15.11			-	172.702
176.689	-	24.429	20.405	15.11				179.451
193.758		24.431	20.106	15.10				186.6 6
191.268		24.433	20.108	15.17				194.212
201.938		24.435	20.111	15.09	-			204.302

MACH NO = 25.00 CONE ANGLE = 9.00 ANGLE OF ATTACK = 3.0.

		Б <b>/</b>	P FREE -S	TREAM A	T PLANE	ANGLES		
LISN	9.	30.	60.	90.	120.	150.	180.	S/RN
		00.0		,,,	2200	2,00	2004	<b>6</b> 7 (0)
.844	66.785	65.035	60.350	54.446	49.636	45.379	44.099	1.414
1.104	51.959	60.311	56.008	50.587	45.661	42.343	41.184	1.578
1.461	55.595	54.107	50.249	45.428	41.099	38.213	37.209	2.138
2.092	47.573	46.271	42.936	38.852	35.272	32.942	32.140	2.587
2.555	41.392	43.214	37.215	33.657	30.635	28.733	28.097	3.146
3.343	35.437	34.326	31.588	28.441	25.857	24.280	23.761	3.941
4.247	31.037	29.967	27.300	24.331	21.988	20.625	20.198	4.859
5.253	28.386	26.978	24.263	21.321	19.066	17.791	17.399	5.878
5.149	26.470	25.332	22.481	19.486	17.236	15.987	15.609	6.785
7.269	25.287	24.617	21.004	17.885	15.593	14.338	13.961	7.919
9.418	24.722	23.320	26.055	16.758	14.389	13.112	12.729	9.:83
9.386	24.609	23.078	19.562	16.081	13.629	12.324	11.935	18.763
13.548	24.794	23.093	19.237	15.501	12.930	11.584	11.185	11.240
11.701	25.232	23.352	19.131	15.111	12.404	11.011	10.601	12.406
12.834	25.857	23.785	19.184	14.862	12.008	10.562	10.140	13.554
13.759	26.498	24.252	19.317	14.735	11.754	10.263	9.829	14.490
14.842	27.405	24.924	19.560	14.656	11.519	9.972	9.526	15.587
15.891	28.456	25.715	19.878	14.649	11.342	9.741	9.283	16.549
16.739	29.429	26.457	20.193	14.663	11.230	9.584	9.116	17.508
17.725	33.657	27.434	20.625	14.726	11.130	9.428	8.949	18.506
19.678	32.012	28.486	21.113	14.821	11.058	9.303	8.812	19.471
19.601	33.369		21.649	14.944	11.010	9.201	8.700	20.434
20.348	34.506	33.539		15.065	10.985	9.130	8.620	21.161
21.223	35.826	31.683	22.738	15.230	10.970	9.060	8.540	22. 47
22.078	37.691	32.819	23.378	15.414	10.969	9.003	8.472	22.913
22.778	38.079	33.743	23.931	15.582	16.977	8.965	8.425	23.521
23.606	39.165	34.816	24.613	15.799	10.997	8.927	8.377	24.463
24.426	40.125	35.813	25.312	16.032	11.027	8.899	8.338	25.290
25.242	40.944	36.737	26.922	16.281	11.066	8.878	8.306	26.116
25.921	41.512	37.437	26.617	16.531	11.106	8.866	8.285	26.854
26.740	42.054	33.179		16.778	11.161	8.857	8.265	27.633
27.567	42.444	38.867	28.045	17.070	11.224	8.856	8.252	28.471
28.408	42.687	39.313	28.744	17.379	11.296	8.860	8.245	29.322
23.122	42.783	39.637	29.313	17.649	11.362	8.868	8.243	30.144
33.000	_	39.907		17.989		8.883	8.246	
30.906	42.559	40.048	30.592	18.348	11.545	8.905	8.256	31.951
31.693	42.481	43.070	31.372	18.660	11.632	8.927	8.268	32.638
32.643	42.193	39.987	31.589	19.049	11.743	8.960	8,289	33.639
33.63.8	41.847	39.798	32.032	19.454	11.863	8.999	8.316	34.617
34.676	41.471	39.518	32.389	19.875	11.992	9.044	8.350	35.668
35.580	41.155	39.231	32.614	20.237	12.108	9.087	8.384	36.583
36,712	40.795	38.847	32.789	20.683	12.256	9.145	8.432	37.733
37.88-3	46.481	38.458	32.857	21.128	12.412	9.209	8.488	38.915
38.899	46.259	38.149		21.496	12.548	9.266	8.540	39.934
40.144	40.044	37.814	32.718	21.929	12.720	9.341	8.61û	41.204

M4CH NO = 25.00CONF ANGLE = 9.03 ANGLE OF ATTACK = 3.0° P / P FREE-STREAM AT PLANE ANGLES LIRN 3C. 60. 90. 120. 150. S/RN û. 180. 41.458 39.885 37.530 32.519 22.348 12.903 9.422 8.689 42.535 42.843 79.779 37.366 32.254 22.744 13.099 9.510 8.778 43.937 37.167 39.726 32.000 9.588 44.060 23.05û 13.274 8.860 45.169 39.697 45.608 37.058 31.676 23.378 13.499 9.689 8.969 46.736 47.258 39.697 37.004 31.358 23.648 13.741 9.797 9.090 48.4ú7 39.716 48.684 36.998 31.121 23.821 13.952 9.890 9.196 49.850 50.454 39.752 37.018 36.881 23.958 14.214 10.005 9.330 51.643 37.059 30.695 24.023 10.126 52.304 39.799 14.488 9.472 53.515 24.022 54.246 39.855 37.112 30.563 14.770 10.252 9.621 55.482 55.949 39,903 37.161 36.492 23.977 15.012 10.362 9.750 57.286 58.109 39,961 37.227 30.448 23.881 15.304 10.501 9.912 59.393 37.295 38.440 23.752 15.594 60.419 48.014 10.678 10.648 61.732 62.477 37.351 30.455 23.627 15.829 10.778 40.050 10.222 63.815 66.515 65.133 40.083 37.412 36.489 23.470 16.094 10.943 16.397 67.956 40.106 37.458 36.536 23.320 16.328 11.11.4 10.569 69.362 37.489 36.588 23.190 16.521 70.906 40.122 11.288 10.732 72.350 73.478 40.129 37.500 30.632 23.098 16.649 11.434 10.860 74.953 37.562 76.556 40.135 30.681 23.013 16.764 11.605 11.001 78.181 40.141 16.842 79.868 37.500 30.725 22.955 1-1.765 11.121 81.423 37.493 38.756 22.917 11.223 33.094 46.144 16.889 11.912 84.689 37.487 22-897 85.809 40.145 30.773 16.911 12.025 11.296 87.438 89.110 48.146 37.480 36.787 22.882 16.920 12.147 11.368 90.780 12.254 92.471 40.147 37.474 38.791 22.874 16.913 11.424 94.183 30.790 22.872 16,897 11.460 40.148 37.468 12.333 97, 73 95.325 22.872 98.826 40.150 37.463 30.785 16.870 12.416 11.490 100.617 36.778 22.874 16.836 11.506 104.256 102.420 40.152 37.459 12.486 40.154 37.457 30.769 22.877 16.799 12.545 11.511 198.991 136.119 11.507 111.212 37.457 22.880 109.290 48.155 30.762 16.766 12.587 113.213 40.156 37.458 30.753 22.884 16.728 12.630 11.493 115.183 22.888 11.473 119.295 117.274 40.157 37.468 36.744 16.693 12.664 40.158 37.463 36.737 22.891 16.666 12.688 11.453 122.839 120.774 22.895 16.638 11.426 127.243 125.124 40.158 37.466 30.729 12.711 129.551 40.158 37.469 30.722 22.898 16.614 12.728 11.397 131.827 46.159 22.900 16.593 134.370 37.472 36.716 12.740 11.370 136.655 37.475 30.713 22.991 16.577 12.746 11.348 140.747 139.461 40.160 36.739 22.901 143.575 46.151 37.477 16.561 12.751 11.324 145.924 148.936 40.163 37.480 30.707 22.900 16.547 12.752 11.304 151.346 22.897 153.598 40.164 37.482 30.706 16.537 12.751 11.290 156. 64 16.527 40.166 37.485 30.705 22.893 12.750 11.278 161.986 159.439 165.592 40.168 37.487 30.706 22.888 16.520 12.747 11.270 168.215 16.516 40.170 37.490 30.707 22.881 12.745 11.267 174.778 172.073 16.514 37.491 30.708 22.874 12.743 11.268 180.523 177.748 40.172 184.913 40.175 37.494 30.710 22.866 16.515 12.741 11.273 187.778

22.857

22-848

16.517

1.6.520

12.741

12.742

11.282 195.462

11.295 203.619

192.503

200.560

40.177

40.179

37.496

37.498

30.712

30.716

MACH NO = 30.06 CONE ANGLE = 9.00 ANGLE OF ATTACK = 3.0

		P /	P FREE-S	TREAM A	T PLANE	ANGLES		
L/2N	0.	3♀•	60.	90.	120.	150.	188.	S/RN
		0.0	<b>~~~</b>	30 •	1000	2,00	1000	3
. 844	95.874	93.323	86.620	78.143	70.368	65.109	63.262	1.414
1.168	87.172	84.845	78.775	71.139	64.227	59.585	57.969	1.743
1.546	77.773	75.686	70.282	53.553	57.526	53.523	52.132	2.119
2.102	66.316	64.487	59.816	54.109	49.138	45.929	44.813	2.588
2.796	56.141	54.509	50.367	45.499	41-410	38.856	38.002	3.390
3.619	48.250	46.728	42.875	38.498	34.957	32.834	32.147	4.224
4.557	42.652	41,124	37.318	33.119	29.843	27.956	27.371	5.173
5.584	38.941	37.334	33.421	29.218	26.027	24.239	23.693	6.214
6.675	76.627	34.900	30.772	26.446	23.234	21.467	20.935	7.317
7.803	35.346	33.455	29.017	24.483	21.193	19.407	18.878	8.460
8.951	34.830	32.736	27.907	23.095	19.684	17.851	17.316	9.522
10.183	34.881	32.555	27.268	22.1-21	18.556	16.682	16.126	10.788
11.436	35.444	32.828	26.955	21.359	17.585	15.638	15.065	12.138
12.558	36.229	33.349	26.950	26.941	16.969	14.952	14.362	13.275
13:655	37.241	34.069	27.118	20.680	16.500	14.410	13.803	14.385
14.721	38.471	34.966	27.415	28.536	16.143	13.979	13.355	15.464
15.751	39.912	36.033	27.817	20.479	15.870	13.634	12.993	
16.746	41.541	37.260	28.311	20.491				16.517
17.705					15.664	13.354	12.698 12.455	17.514
	43.321	38.626	28.891	20.556	15.508	13.126	_	18.485
18.629	45.295	49.106	29.549 30.278	20.666	15-393	12.939	12.254	19.421
19,522	47.144	41.667		29.814	15.311	12.784	12.085	20.325
20.386	49.089	43.280	31.067	20.996	15.255	12.657	11.943	21.289
21.226	50.993	44.914		21.206	15.222	12.551	11.824	22.359
22.179	53.139	46.896	32.949	21.487	15.206	12.450	11.706	23.115
22.977	54.789	48.385		21.753	15.211	12.379	11.622	23.823
23.763	56.313	49.898	34.841	22.043	15.230	12.322	11.551	24.619
24.540	57.658	51.321	35.826	22.355	15.262	12.276	11.491	25.406
25.312	58.806	52.632	36.827	22.688	15.307	12-240	11.441	26.187
25.083	59.747	53.815	37.838	23.041	15.362	12.214	11.400	26.968
26.857	60.478	54.851	38.852	23.415	15.429	12.196	11.367	27.751
27.637	60.999	55.729	39.861	23.811	15.505	12.187	11.343	28:541
28.429	61.318	56.439	40.857	24.230	15.593	12.185	11.326	29.343
29.237	61.445	56.974	41.830	24.672	15.691	12.190	11.316	30.161
30.065	61.390	57.329		25.139	15.800	12.204	11.314	31.000
31.063		57.516		25.718	15.941	12.228	11.320	32.310
31.944	69.739	57.486	44.608	26.239	16.074	12.258	11.333	32.962
32,852	60.255	57.289		26.784	16.217	12.294	11.355	33.821
33.793	59.706	56.945	45.942	27.353	16.372	12.339	11.384	34.774
34.774	59.131	56.477	46.437	27.946	16.540	12.392	11.421	35.767
35.800	58.567	55.921	46.798	28.563	16.720	12.453	11.468	36.866
36.862	58.055	55.330	47.010	29.190	16.912	12.522	11.524	37.881
37.953	57.614	54.748	47.070	29.818	17.114	12.598	11.589	38.986
39.082	57.252	54.209	46.985	36.442	17-327	12.681	11.664	40.128
43.254	56.972	53.733	46.765	31.058	17.554	12.773	11.750	41.316
41.480	56.771	53.336	46.431	31, 656	17.797	12.873	11.847	42.557

CONF ANGLE = 9.00 ANGLE OF ATTACK = MATCH NO = 30.80 3.0 P / P FPEE-STREAM AT PLANE ANGLES **F\SN** J . 30. 60. 90. 120. 150. 180. SZRN 4-2.990 56.627 52.984 45.933 32.319 18.102 13.000 11.977 44. 85 12.103 56.569 52.782 45.449 32.842 18.387 13.120 45.477 44.354 45.826 56.558 52-667 44.951 33.304 18.695 13.249 12,246 46.957 52.633 44.48-2 33.684 47.350 56.594 19.025 13.386 12.431 48.510 44.075 33.963 19.368 13.527 12.565 48.938 56.537 52.651 50.118 12.741 51.571 56.705 52.766 43.742 34.139 19.729 13.575 51.761 52.259 56.786 52.786 43.488 34.216 20.104 13.830 12.927 53.480 54.344 56.874 52.878 43.312 34.202 20.495 13.992 13.123 55.278 56.963 52.978 34.108 23.898 13.329 43.269 14.165 57.158 55.911 57.849 53.083 47.166 33.950 21.310 14.346 13.545 59.167 57.886 59.986 53.188 43.174 33.744 21.724 14.541 13.771 57.123 61.294 62.626 53.306 43.228 33.467 22.196 14.784 14.046 63.966 57.192 66.447 65.276 57.231 53.391 43.299 33.219 22.580 15.008 14.290 57.645 57.257 53.454 43,384 32.989 22.923 15.238 14.527 69.247 57.273 32.788 23.212 15.473 14.756 70.313 53.491 43.473 71.746 53.501 43.558 32:-624 23.445 15.711 14.974 73.036 57.279 74.557 32.498 23.624 15.949 77.498 75.991 57.282 53.496 43.637 15.180 53.483 43.704 32.411 23.751 16.178 15.363 80.514 78.979 57.284 16.393 81.958 57.286 53.468 43.756 32.358 23.832 15.521 83.539 23.874 16.592 84.966 57.286 53.454 43.789 32.326 15.655 86.585 57.285 53.440 32.311 23.884 16.773 15.766 89.006 43.806 89,662 91.086 57.286 53.427 43.811 32.308 23.868 16.937 15.855 92,781 15.933 94.745 57.289 53.415 43.804 32.311 23.825 17.106 96.486 57.292 97.948 53.406 43.792 32.317 23.771 17.232 15.978 99.723 17.343 32:326 23.709 16.005 103.144 101.223 57.296 53.401 43.777 23.643 17.440 16.015 106.441 134.578 57.300 53.399 43.762 32-335 43.747 32.343 23.576 17.523 16.010 109.929 103.323 57.383 53.400 23.513 43.732 17.594 15.992 113.517 111.567 57.305 53.463 32.351 115.218 57.306 5-3-458 43.717 32:359 23.456 17.653 15.964 117.214 53.414 43.704 32-367 23.405 17.700 15.929 121.13. 118.987 57.396 17.737 57.307 53.42 43.693 32.373 23.361 15.889 124.975 122.834 17.764 125.918 57.307 53.425 43.683 32-378 23.324 15.845 129.159 32-384 53.429 43.674 23.291 17.782 15.801 133.293 131.099 57.307 17.794 32.389 23.257 15.751 138.438 136.180 57.308 53.434 43.667 143.722 57.309 53.437 43,663 32.392 23.231 17.797 15.710 143.136 145.449 57.310 53.440 43.660 32.393 23.207 17.796 15.673 147.822 32.392 53.443 43.659 23.185 17-791 15.648 152.889 157.374 57.311 23.165 17.784 15.613 158.311 155.512 57.313 53.445 43.659 32.389 53.448 32.384 23.148 17.776 15.591 163.443 163.878 57.315 43.66G 57.318 53.449 43.661 32.377 23.136 17.768 15.576 169.122 166.487 15.567 175.366 53.451 43.663 32.368 23.128 17.761 172.358 57.321 53.453 15.565 181.293 23.124 17:756 173.568 57.324 43.665 32.357 184.951 57.327 53.455 43.667 32.346 23.125 17.752 15.570 187.826 57.330 53.459 43.670 32.334 23.130 17.749 15.588 194.688 191.738 53.461 32.320 23.139 17.748 15.600 203.146 200.093 57.333 43.674

MAC	H NO =	3.50 00	DNE ANGL	E = 10.08	ANGL	E OF ATT	ACK =	3.00
		p / p	FREE-ST	REAM AT	PLANE	ANGLES		
L/RN	0 •	30.	60.	96.	120.	150.	186.	S/RN
.826	2.051		1.887	1.7.33	1.590	1.491	1.456	
• 920	2.038	1.991	1.870	1.713	1.568	1.459	1.434	1.491
• 97 1	2.051	2.015	1.892	1.735	1.589	1.439	1.454	
1.143	2.068	2.622	1.901	1.747	1.603	1.5;6	1.471	
1.275	2.057	2.011	1.891	1.737	1.597	1.501	1.467	
1.500	2.033	1.987	1.868	1.718	1.580	1.487		
1.669	2.010	1.965	1.848	1.700	1.566	1.476		
1.856	1.985	1.949	1.825	1.680	1.549			
2.167	1.939	1.895	1.783	1.643		1.438	1.410	
2.397	1.905	1.863	1.751	1.615	1.498	1.421	1.395	
2.777	1.873			1.583		1.397		
34054	1.85.7		1.702	1.567		1.381	1.358	
3.350	1.842	1.799	-	1.554		1.367	1.344	
3.839	1.827		1.670	1.536		1.359	1.327	
4.174	1.822	-	1.662	1.528		1.343	1.315	
4.728	1.823	1775	1.657	1.520	1.406 1.403	1.337 1.335	1.313	
5.122	1.822		1.656	1.517	1.403	1.333	1.313	
5.758	1.828	1.781	1.658 1.662	1.518	1.403	1.334	1.313	
6.194	1.835	1.787		1.520		1.336	1.315	
6.657	1.843	1.794	1.667	1.523	1.406	1.341	1.320	
7.390	1.856	1.896	1.677	1.530	1.411 1.415	1.346	1.325	
7.904	1.855	1.814	1.683 1.695	1.535 1.544	1.423	1.354	1.333	
8.713	1.880	1.828	1.702	1.544	1.429	1.359	1.338	
9.278 9.863	1.889 1.899	1.837 1.845	1.719	1.556	1.434	1.364	1.344	
19.786	1.913	1.859	1.721	1.566	1.442	1.373	1.352	
11.418	1. 92.1	1.857	1.728	1.572	1.448	1.378	1.358	
12.413	1.933	1.879	1.738	1.580	1.456	1.386	1.366	2
13.104	1.941	1.885	1.745	1.586	1.461	1.391	1.371	
14.180	1.951	1.896	1.754	1.594	1.468		1.378	-
14.925	1.957	1.902	1.759				1.383	
15.692	1.953	1.957	1.764	1.603	1.476	1.407	1.387	_
		1.915						
17.709	1.976	1.920	1.776	1.613	1.486	1.416	1.396	18.540
18.990	1.983	1.926	1.782	1.619	1.491	1.421	1.481	
19.873	1.987	1.936	1.785	1.622	1.494	1.424	1.404	
20.732	1.990	1.934	1.789	1.625	1.497	1.426	1.496	-
22.132	1.995	1.938	1.794	1.629	1.501	1.430	1.410	23.391
23.164	1.998	1.941	1.795	1.632	1.503	1.432	1.412	
24.673	2.002	1.945	1.800	1.635	1.506	1.436	1.415	
25.714	2.004	1.948	1.803	1.638	1.508	1.437	1.417	
27.329	2.007	1.951	1.806	1.641	1.511	1.440	1.420	
23.444	2.009	1.953	1.878	1.643	1.512	1.442	1.421	
29.589	2.011	1.955	1.810	1.644	1.514	1.443	1.423	
31.367	2.013	1.957	1.812	1.647	1.516	1.445	1.425	32,438

. Y.

M	ACH NO =	3-•50	CONE ANG	LE = 10.0	ID ANGL	E OF ATT	ACK =	3.0
						*****		
	_		P FREE-S			ANGLES		0.404
L/RN	0-•	30 ⋅	60.	90.	120.	150.	180.	S/RN
70 505		4. 05.0	4 94 6	4 61.9	4 647	4 1.1.5	1.426	33.655
32.595		1.958	1.814	1.648 1.650	1.517	1.446 1.448	1.427	35.592
34.503		1.960	1.816		1.519		1.428	36.933
35.820		1.961	1.817	1.651	1.520	1.449 1.450	1.429	38.39.7
37.177		1.962	1.819	1.653	1.521 1.523	1.451	1.430	40.450
39.237		1-964	1.820	1.654	1.524	1.451	1.431	41.932
40.746		1.965	1.821	1.655			1.431	44.238
43.017		1.966	1.823	1.657	1.525	1.453 1.453	1.432	45.834
44.589		1.966	1.823	1.657	1.526 1.527	1.453	1.433	48.320
47.037		1.967	1.825	1.659		1.455	1.434	50.741
48.732		1.968	1.825	1.659	1.528 1.528	1.455	1.434	51.815
50.479		1.968	1.826	1.668		1.456	1.435	54.583
53.202		1.969	1.827	1.661	1.529	1.457	1.435	56.495
55.088		1.969		1.661	1.538	1.457	1.436	59.48 <sub>.0</sub>
58.028		1.969		1.662	1.530 1.531	1.458	1.437	61.548
60.064		1.970		1.663 1.663	1.531	1.458	1.437	63.681
62.165		1-970		1.664		1.459	1.437	67.007
65.440		1.970			1.532 1.532	1.459	1.438	69.312
67.710		1.971		1.664	1.533	1.459	1.438	72.906
71.250		1.971		1.665 1.665	1.533	1.459	1.438	75.397
73.703		1.971		-	1.533	1.460	1.439	79.282
77.528		1.971		1.666 1.666	1.533	1.460	1.439	81.374
80.180		1:-971		1.666	1.534	1.460	1.439	84.752
82.916		1.971		1.667	1.534	1.461	1.439	89.:85
87.183		1.971		1.667	1.534	1.461	1.439	92. 88
98.141		197.2		1.667	1.534	1.461	1.440	96.774
94.755		1:.972		1.668	1.535	1.461		160.021
97.953 101.253		1.972		1.668	1.535	1.461		163.373
105.402		1.972		1.668	1.535	1.461		108.600
		1.97-2		1.668	1.535	1.462		112.224
109.971		1: 972		1.669	1.535	1.462		117.878
115.539 119.399		1.972		1.669	1.536	1.462		121.798
125.421		1.972		1.669	1.536	1.462		127.913
		1.972						132.153
129.597			1.832	1.669	1.536	1.462	1.448	
133.905		1.972 1.972		1.669	1.536	1.462	1.440	143.353
140.627		1.972	1.832	1.669	1.536	1.462	1.440	148.086
145.287		1.972	1.832	1.669	1.537	1.462	1.440	155.469
152.558		-		1.669	1.537	1.462	1.440	160.588
157.600		1972 1972	1.832 1.832	1.669	1.537	1.462	1.440	165.870
162.802				1.669	1.537	1.462	1.440	174.112
170.918		1.972 1.972		1.670	1.537	1.462	1.440	179.827
176.546		1.972		1.670	1.537	1.462	1.440	188.742
185.326				1.670	1.537	1.462	1.440	194.924
191.41		1.973		1.670	1.537	1.452	1.440	
200.913	24061	1973	1.832	T.O. f.	T + 701	11776	T. 440	m 0 -4 1-34 -3-3:

	MACH	NO =	5.00	CO	NE	ANGLE	= :	LO.00		ANGLE	OF	ATT	ACK =	3.00
			<b>.</b> .			- 0 <b>-</b>	- 4 14		_		ANCI			
	241	•		P		E-STRI				LANE	ANGL	.E.S	180	. S/RN
L/	KN	0.	30.		•	<b>.</b> 0.	9(	J •	Ŧ	20.	100	•	100	• SZKII
. 8	26	3.511	3.426		3.2	205	2.9	22	2.	660	2.48	31	2.41	8 1.396
. 9		3.452	3.367		3.1		2.80			600	2.42		2.35	9 1.493
1.0		3.437	3.354				2.8			604	2.43	30	2.36	9 1.508
1.2		3.339	3.258				2.7		2.	534	2.38	59	2.31	1 1.314
1.3		3.260	3.180		2.9	374	2.7	13	2.	476	2.31	6	2.26	
1.6		3.129	3.053			354	2.6	05	2.	381	2.23		2.17	
1.9		2.996	2.922		2.7	730	2.4	92	2.	280	2.14	+1	2.09	
2.1		2.903	2.831		2.6	544	2 • 4:	14		211	2.08		2.03	
2.5		2.776	2.705		2.5	521	2.3	0 0		110	1.98		1.94	
2.8	95	2.677	2.606		2.4		2.2			021	1.90		1.86	
3.3	23	2.596	2.525				2.1			944	1.83		1.79	
3.6	30	2.553	2.481				2.0			899	1.78		1.75	
4.1	23	2.506	2.432				2.0			841	1.73		1.69	
4.6	53	2.476	2.400				1.9			796	1.6		1.65	
5.0	27	2.466	2.387				1.9			772	1.6		1.62	
5.6		2.461	2.379				1.9			745	1.63		1.59	5 6.261
6.2		2.468	2.382				1.9			726	1.5		1.57	4 6.895
6.9	01.	2.484	2.394				1.9			715	1.59		1.56	0 7.564
7.3		2.498	2.405				1.9			711	1.5		1.55	4 829
8.0		2.525	2.429			189	1.9	22		710	1.5		1.54	8 8.754
8.8		2.557	2.457				1.9			712	1.5		1.54	
3.3		2.579	2.477				1.9			716	1.5		1.54	
10.1		2.614	2.508		2.1		1.9			724	1.5		1.55	
19.9		2.649	2.541				1.9			735	1.6		1.56	
11.5		2.672	2.562				1.9			742	1.6		1.56	
12.4		2.706	2.594				2.0			755	1.6		1.57	
13.3		2.739	2.624				2.0			769	1.6		1.58	-
14.3		2.769	2.653			363				783	1.6		1.60	
15.0		2.788	2.671				2.0			792 806	1.6		1.61	•
16.1		2.814	2.697 2.720				2.0 2.0			820	1.6		1.62	-
17.2		2.838	2.734			422 435				828	1.6		1.63	
17.9		2.852	2.753				2.1			841	1.6		164	-
19.1		2.890	2.793				2.1			853		03	1.66	
21.5		2.905	2.786				2.1			864	1.7		1.67	
22.4		2.914	2.795			493	2.1			870	1.7		1.67	
23.7		2, 926	2.808				2.1			880	1.7		1.68	
25.0		2.937	2.819			517	2.1			888	1.7		1.69	-
25.9		2.943	2.825				2.1			894	1.7		1.69	
27.3		2.951	2.834			533	2.1			901	1.7		170	
28.7		2.958	2.842			541	2.1			908	1.7		1.71	
30.2		2.964	2.848			549	2.1			914	1.7		1.71	
31.3		2.967	2.852			554	2.2			918	1.7		1.72	
32.8		2.971	2.857			560	2.2			924	1.7		1.72	
34.5		2.973	2.861			565	2.2			929	1.7		1.73	

м	IACH NO =	5.0:0 C	ONE ANGLE	= 18.0	) ANGL	E OF ATT	ACK =	3.09
		ń . n	FŘEE-ST	REAM AT	PLANE	ANGLES		
1.40N		30.	60.	90.	120.	150.	180.	S/RN
L/RN	9.	30.	80.	50.	14.5	1504	2000	<u> </u>
35.624	2.975	2-, 863	2.569	2.216	1.932	1.777	1.733	36.731
37.356		2-865	2.573	2.221	1.937	1.781	1.737	38.489
39.153		2.867	2.577	2-225	1.941	1.784	1.741	40.314
40.388		2-863	2.579	2.228	1.943	1.787	1.743	41.569
42.301		2.869	2.582	2.232	1.947	1.790	1.746	43.511
44.289		2870	2.585	2-235	1.950	1.793	1.749	45.529
46.354		2.871	2.587	2.238	1.953	1.796	1.751	47.626
47.776	_	2.871	2.588	2.240	1.955	1.797	1.753	49.7
49.979		2-872	2.589	2.243	1.958	1.800	1.755	51.337
52-270	2.981	2-872	2.590	2-,246	1.960	1.802	1.757	53.633
53.848		2.872	2.591	2.247	1.962	1.803	1.758	55.236
56.294		2.873	2.592	2.249	1.964	1.805	1.760	57.72
58-839		2.4873	2.592	2.251	1.966	1.807	1.762	60.354 62.993
61.488		2.873	2.593	2.253	1.968	1.808	1.763	64.346
63.312		2.873	2.593	2.254	1.969	1.809	1.764 1.765	67.720
66.142		2-873	2.594	2.255	1.970	1.811	1.766	70.713
69.087		2-873	2.594	2.256	1.972	1.812 1.813	1.767	72.772
71.117		2.873	2.594	2.257	1,973 1,974	1.814	1.768	75.968
74.266		2.873	2•594 2•594	2.258 2.259	1.975	1.815	1.769	79.296
77.543		2.873	2.594	2.260	1.976	1.815	1.770	82.760
80.954		2.873 2.873	2.594	2260 2260	1.977	1.816	1.770	85.147
83.309 86.95		2.873	2.594	ޕ261	1.978	1.817	1.771	88.853
95.74		2-873	2.594	2.261	1.979	1.817	1.771	92.705
93.36!		2-873	2.594	2.261	1.980	1.818	1.772	95.363
97.42		2.873	2.594	2.261	1.981	1.818	1.772	99.485
10-1-65		2-874	2.594	2.262	1.981	1.819	1.772	103.776
104.56		2.874	2.594	2.262	1.982	1.819		106.734
109.08		2.874	2.594	2.262	1.983	1.819		111.323
113.78		2.874	2.594	2.262	1.983	1.820		116.103
118.68		2874	2.593	2.262	1.984	1.820		121.274
122.05		2-874	2.593	2.262	1.984	1.820		124.502
127.30				2.262	1.384			129.821
132.75		2 • 87 4	2.593	2-262	1.985	1.821		135.359
136.51		2.874	2.593	2.262	1.985	1.821		139.176
142.34		2.874	2.593	2.262	1.985	1.822		145.198 151.264
148.41		2.875	2.593	2.262	1.985	1:822		157.683
154.73		2.875	2.593	2.262	1.986	1.822 1.822		162.138
159.09		2-875	2.593	2.261 2.261	1.986 1.986	1.823		168.974
165.85		2.875	2.593 2.593	2.261	1.986	1.823		176.121
172.89		2 • 87 5 2 • 87 5	2.593	2.261	1.986	1.823		181.749
177.75		2.875	2.593	2.261	1.986	1.823		188.694
185.27 193.11		2:875	2.593	2.261	1.986	1.823		196.654
201.27		2.875	2.593	2.261	1.986	1.823		204.941
						-		

МД	CH NO =	10.00	CONE	ANGLE	= 1	0 • 0 a		ANGLE	OF	ATTA	CK =	3.0.
		P /	D FR	EE-STR	EAM	ΛŤ	01	.ANE	ANGL	= 0		
L/RN	0.	30.		50.	90			. ANE. 20 •	150		180-	SZDN
<b>C</b> / · · · · ·	•	30.	,	50 •	90	•	1 6	. U •	191	3 •	TOU	S/RN
.826	11.998	11.689	10.	880 4	9.85	2	8.9	106	8.26	55	8.039	1.396
.966	11.603	11.304	10.		9.51		8.6		7.98		7.763	1.538
1.145	11.093	10.806	10.0		9.11		8.2		7.67		7.470	1.720
1.425	10.298	10.029	9.		8.45		7.6		7.14		6.960	2.064
1.755	9.458	9.208	8.5		7.76		7.0		6.5		6.421	2.339
2.937	8.851	8.612			7.24				6.16		6.013	2.625
2.460	8.074	7.849	7.2		5.58		5.9		5.61		5.492	3.155
2,937	7.440	7.221			5.01				5.12		5.008	3.540
3.468	6.921	6.704			5.52		5.0		4.68		4.584	4.178
4.046	6.528	6.307	5.7		5.12				4.31		4.215	4.565
4.508	6.306	6.078	5.9		4.87				4.07		3.97.7	5.134
5.155	6.094	5.855			4.61		4.1		3.80		3.7.11	5.792
5.834	5.962	5.769			4.41				3.59		3.496	6.481
6.537	5.897	5.626			4.26				3.41		3.323	7.195
7.260	5.886	5.595			4.15				3.28		3.184	7.929
7.812	5.908	5.601	4.8		4.09				3.19		3.099	8.489
8.557	5.969	5.639	4.8		4.04				3.10		3.006	9.247
9.312	6.062	5.708	4.8		4.01		3.3		3.03		2.933	10.313
1:0 -073	6.180	5.800	4.9	312	+.00				2.98		2.875	10.786
19.839	6.316	5.912	4.9	967	4.00		3.3		2.94		2.830	11.563
11.415	6.428	6.005	5.0	18 4	+.01		3.3	-	2.91		2.803	12.148
12.185	6.585	6.138	5.0	95 4	+.03		3.2		2.89		2.774	12.930
12.957	6.749	6.279	5.1	183 4	+ . 07	0	3.2	88	2.87		2.753	13.714
13.728	6.917	6.425	5.2	276	+.10	9	3.2	93	2.86	5	2.738	14.497
14.500	7.086	6,574	5.3	375 4	+.15	4	3.3	103	2.86	0	2.728	15.281
15.078	7.212	6.686	5.4		+.19	0	3.3	13-	2.85	8	2.724	15.868
15.849	7.378	6.834			4.24		3.3	31	2.86	1	2.722	16.651
16.620	7.539	6.981	5.6		+.29		3.3		2.86		2.724	17.434
17.392	7.694	7.123			35		3.3	7-6-	2.87	'5	2.729	18.218
13.157	7.840	7.260			+.41				2.88		2.736	19.304
18.751	7.943	7.358	5.9		+.46		3.4		2.89		2.743	19.597
19.534	8.072	7.484			+.52		3.4		2.91		2.754	20.393
20.327	8.189			146 4					2.92		2.767	21.197
21.130	8.293	7.710	6.2		+.64		3.5		2•94		2.782	22.313
21.948	8.385	7.809	6.3		+.70		3.5		2.96		2.798	22.843
22.573	8.444	7.876	6.4		75				2 • 98		2.812	23.478
23.424	8.509	7.957	6.4		.81		3.6	-	3 <b>.0</b> 0		2.831	24.342
24.300	8.558	8.024	6.5		. 87				3.02		2.851	25.232
25 - 204	8.592	8.078	6.6		• 93				3.05		2.873	26.150
26.141	8.613	8.119	6.7		. 99				3.07		2.897	27.101
26.868	8.620	8.141	6.7		.04		3.7		3.09		2.915	27.840
27.874	8.620	8.158	6.8		•10		3.7	_	3.12		2.941	28.862
28.927	8.613	8.164	6.8		•15		3.8		3.15		2.967	
30.032	8.600	8.162	6.9		.21		3 • 8		3.18		2.996	31.153
31.196	8.584	8.153	6.9	, jo /	.26	<i>r</i> ,	3•9	10-	3.21	.4	3.025	32.235

MA	CH NO =	10.00	CONE AN	GLE = 10.	66 ANG	LE OF A	TTACK =	3.00
		P /	P FREE-	STREAM A	T PLANE	ANGLE	ς.	
L/RN	Ð.	3↑•	60.	90.	120.	150.		SZRN
						2,00	100	yi za ve.
32.112	8.571	8.143	6.974	5.306	3.940	3.238	3.047	33.165
33.394	8.553	9.128	6.989	5.356	3.979	3.269	3.078	
34.752	8.536	8.111	6 <b>.9</b> 95	5.402	4.018	3.300	3.109	
36.195	8.519	8.095	6.994	5.445	4.056	3.332	3.141	
37.733	8.504	8.079	6.987	5.484	4.894	3.363		
38.953 40.679	8.494	8.069	6.980	5.589	4.121	3.386		
42.528	8.482	8.056	6.969	5.538	4.157	3.417	3.230	41.364
44.512	8.473 8.466	8.044	6.958	5.568	4.192	3.446	3.262	
46.630	8.46?	8.035	6.947	5.575	4.225	3.475	3.292	
48.282	8.461	8.028 8.025	6.937	5.583	4.257	3.502	3.322	
50.565	8.461	8-1:22	6.930 6.923	5.587	4.279	3.521	3.342	
52.945	8.462	8.021	6.916	5.589 5.588	4.307	3.544	3.367	51.903
55.423	8.465	8.022	6.911	5.587	4.332	3.566	3.390	54.319
58.906	8.467	8.023	6.907	5.585	4.354 4.372	3.586	3.410	56.836
60.013	8.469	8.624	6.904	5.584	4.383	3.605	3.428	59.458
62.787	8.472	8.026	6.902	5.582	4.395	3.618 3.635	3.440	61.496
65.676	8.474	8.028	6.901	5.580	4.404	3.649	3.454 3.467	64.312
63.685	8.477	8.029	6.900	5.577	4.411	3.663	3.477	67.246 70.302
71.819	8.479	8.031	6.899	5.575	4.416	3.675	3.486	73.484
74.256	8.481	8-832	6.899	5.573	4.419	3.683	3.492	75.358
77.622	8.483	8.033	6.899	5.571	4.422	3.692	3.499	79.377
81.129	8.485	8.035	6.899	5.569	4.425	3.700	3.504	82.938
84.783	8.486	8₽36	6.899	5.566	4.428	3.706	3.508	86.648
88.589	8.488	8.037	6.899	5.564	4.430	3.710	3.51G	90.513
91.548	8.489	3- <b>-</b> -038	6.899	5.563	4.432	3.713	3.511	
95.638	8.490	8.039	6.898	5. 562	4.433	3.715	3.512	97.679
99.899	8.491	8.040	6.898	5.560	4.434	3.718	3.511	191.998
134.340 108.967	8.492	8 • 640	6.898	5.559	4.435	3.720	3.510	106.507
112.565	8.493 8.493	8.041	6.898	5.558	4.436	3.722		111.205
117.539	8.494	8.042 8.042	6.898	5.557	4.436	3.724		114.859
122.722	8.495	0 • U42 8 • 043	6.898	5.556	4.436	3.726		119.959
128.124	8.496		6.898 6.898	5. <b>55</b> 5	4.436	3.727		125.173
133.754	8.496	8-645	6.898	5.553	4 • 435	3.729	3.507	
138.132	8.497	8.845	6.899	5.552	4.435	3.731		136.374
144.184	8.497	8.046	6.899	5.552 5.551	4.435	3.732		140.825
150.492	8.497	8 • 046	6.899	5551 5550	4.434 4.434	3.734		146.965
157.066	8.498	8.647	6.900	5.549	4.433	3.735		153.370
163.918	8.498	8.648	6.900	5.548	4.433	3.736		160.:46
169.246	8.498	3.048	6.991	5.548	4.432	3.737 3.738		167.034
176.613	8.499	8.048	6.901	5.547	4.432	3.738		172.414 179.895
184.291	8.499	8.049	6.902	5.547	4.431	3.739		187.691
192.294	8.499	8 • 649	6.902	5.546	4 • 4 3 0	3.740		195.817
200.635	8.499	8.049	6.903	5.546	4.430	3.748		264.287
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1	MACH NO =	15.00	CONE ANG	ÉE = 10.	00 ANGI	E OF AT	TACK =	3.0:
		D -/	P FREE-S	TREAM A	T PLANE	ANGLES		
LZR	N 8.	30.	60.	90.	120.	150.		SIRN
L/ 3.1	N 5 6	≎0•	09•	90 •	120•	1994	100.	21/4/14
.829	26.127	25.445	23.659	21.392	19.309	17.898	17.462	1.396
1.51	8 24.820	24.173		29.333	18.371	17.043	16.579	1.591
1.25		22.483		18.906	17.106	15.901	15.481	1.845
1.64		20.151	18.723	16.952	15.373	14.329	13.966	2.233
2.10		17.852	16.561	14.987	13.616	12.730	12.428	2.695
2.64		15.818		13.199	11.996	11.236	10.980	3.241
3.13		14.471		11.980	1.0.868	10-178	9.948	3.737
3.80		13.143		10.703	9.658	9.033	8.832	4.422
4.54		12.184		9.719	8.696	8.097	7.967	5.169
5.32		11.531		8.981	7.953	7.362	7.177	5.966
5.14		11.119	-	8.439	7.387	6.790	6.506	6.797
5.98		10.895		8.048	6.959	6.348	6.160	7.552
7.67		19.823		7.818	6.693	6.068	5.876	8.347
8.53	_	13.839		7.612	6.434	5.788	5.591	9.221
9.39		19.950	9.215	7.476	6.239	5.570	5.366	10.197
17.25	_	11.134	_	7.396	6.093	5.398	5.188	10.970
11.10	. —	11.371		7.359	5.986	5 - 262	5.045	11.836
11.78		11.590	9.448	7.354	5,923	5.175	4.952	12.521
12.61		11.893		7.373	5.867	5.088	4.858	13.366
13.43	- ,	12.224		7.414	5.831	5.022	4.783	14.197
14.23		12.579		7.472	5.812	4.971	4.724	15.13
15.02		12.954		7.544	5.806	4.933	4.678	15.813
15.79		13.345		7.626	5.810	4.906	4.644	16.598
16.49		13.664		7.700	5.820	4.891	4,622	17.216
17.15		14.067		7.798	5.839	4.878	4.602	17.977
17.89		14.466		7.904	5.864	4.872	4.589	18.727
18.62				8.016	5.894	4.872	4.581	19.469
19.35		15.230		8.135	5.930	4.876	4.578	20.206
19.92		15.516		8.233	5.961	4.882	4.578	20.793
20.65		15.851		8.362	6.005	4.893	4.582	21.527
21.37		16.157		8.495	6.052	4:-907	4.590	22.263
22.10		16.430	12.641	8.633	6.103	4.925	4.600	23.066
	8 18.027					4.946		
23.60		16.862	13.146	8.923	6.216	4.970	4.630	24.523
24.21		16.990	13.337	9.044	6.266	4.991	4.645	25.146
25.00		17.111	13.563	9.198	6.332	5.021	4.667	25.943
25.80	-	17.192		9.355	6.402	5.054	4.692	26.764
26.64	-	17.234	,	9.515	6.475	5.090	4.720	27.613
27.51		17.241	14.128	9.678	6.554	5.130	4.752	28.494
23.23		17.224		9.808	6.619	5.164	4.780	29.226
29.15	-	17.180	14.355	9.972	6.704	5.210	4.818	30.173
30.14		17.116	14.439	16.134	6.793	5.260	4.861	31.163
31.15		17.637	14.491	10.295	6.886	5.314	4.907	32.212
32.24		16.949	14.512	19.450	6.982	5.372	4.958	33.296
33.37		16.858	14.505	10.598	7.080	5.434	5.013	34.447

MACH NO = 15.00 CONE ANGLE = 10.00 ANGLE OF ATTACK = 3.03

.,,	1011 110 -	17.00	DONE AND	10.0	U ANOL	C OF ALL	A 0 K -	<b>3 • V</b> ↓
		P /	P FREE-S	TREAM AT	PLANE	ANGLES		
L/RN	ð.	30.	60.	90.	120.	150.	180.	S/RN
			= =					
34.319	17.689	16.788	14.483	10.709	7.151	5.485	5.061	35.486
35.553	17.628	16.708	14.438	10.834	7 - 263	5.552	5.123	3 <b>6.</b> 658
36.854	17.580	16.639	-	10.943	7.367	5.622	5.190	37.980
38.234	17.545	16.584	14.309	11.033	7.472	5.695	5.261	39.381
39.704	17.522	16.542	14.236	11.102	7.579	5.770	5.337	40.874
41.273	17.509	16.515	14.164	11.149	7.687	5.847	5.416	42.467
42.588	17.506	16.502	14.113	11.171	7.773	5.909	5.481	43.802
44.309	17.508	16.496		11.181	7.877	5.986	5.562	<b>45.</b> 550
46.131	17.515	16.497	14.016	11.174	7.976	6.064	5.645	47=• 4 G G
48.070	17.525	16.503	13.984	11.155	8.070	6.140	5.728	49.368
53.142	17.538	16.513	13.964	11.128	8.156	6.217	5.811	51.473
51.911	17.549	16.523	13.954	11.102	8.216	6.278	5.877	53.269
54 • 268	17.563	16.536	13.949	11.069	8.281	6.352	5.956	55.663
56.759	17.577	16.551	13.950	11.838	8.331	6.423	6.029	58.192
59.339	17.589 17.600	16.564 16.576	13.956	11.012	8.367	6.488	6.095	60.912
61.936 64.559	17.608	16.576	13.964	10.991	8 - 3.92	6.546	6.150	63.449
66.683	17.613	16.590	13.97-2 13.978	10.975 10.964	8.4 <u>0</u> 7 8.414	6.596	6-197	66.112
69.378	17.618	16.595	13.986	10.954	8.420	6.631 6.668	6.229 6.262	68.269 71.335
72.127	17.622	16.598	13.992	10.947	8.422	6.698	5.288	73.797
74.943	17.625	16.600	13.997	10.942	8.422	6.722	6.307	76.656
77.835	17.627	16.601		10.938	8.421	6.740	6.320	79.593
39.213	17.628	16.601		10.937	8.420	6.751	6.326	82.238
83.276	17.629		14.004	10.935	8.417	6.761	6,329	85.118
95.451	17.630	16.602	14.005	10.934	8.413	6.768	6.328	88.342
89.753	17.631	16.602	14,005	10.934	8.410	6.773	6.322	91.695
93.197	17.631	16.602	14.004	10.934	8.406	6.776	6.315	95-192
96.800	17.632	16.681	14.003	10.934	8.402	6.779	6.315	98.850
99.809	17.632	16.601	14.002	10.934	8.399	6.781	6.297	101.9.6
103.747	17.632	16.601	14.001	10.933	8.395	6.783	6.287	105.905
107.992	17.632	16.602	13.999	10.933	8.392	6.785	6.278	110.123
112.299	17.633	16.602	13.997	10.932	8.390	6.787	6.269	114.589
116.970	17.633	16.603	13.996	10.931	8.388	6.789	6.263	119.331
120.925	17.C34	16.604	13.995	10.930	8.387	6. <u>7</u> 90	6.259	123.348
126.174	17.635		13.994	13.928	8.387	6.792		128.577
131.832	17.636	16.606	13.993	10.926	8.386	6.794		134.392
137.858	17.637	16.607	13.992	10.923	8.385	6.796		140.542
144.397	17.638	16.609	13.992	10.920	8 • 385	6.798	-	147.182
151.473	17.639		13.992	10.917	8.384	6.800		154.367
157.429	17.640	16.612	13.993	10.915	8 - 383	6.802		160.415
165.193	17.641	16.614	13.995	10.913	8.382	6.805		168,299
173.329	17.642	16.615	13.997	10.911	8.381	6.818		176.563
181.853	-	16.616	13.999	10.910	8.380	5.818		185.215
198.784		16.617	14.000	10.938	8.378	6.813		194.284
200.142	17.644	16.618	14.002	10.908	8.376	6.815	<b>b</b> 6 2 8 6	203.787

ANGLE OF ATTACK = MACH NO = 20.00 CONF ANGLE = 10.09 P / P FREE-STREAM PLANE AT ANGLES L/RN S/RN J. 30. 60. 90. 120. 150. 180. 45.909 44.764 41.549 37.546 33.870 31.384 30.509 1.396 .825 1.075 42.805 41.679 38.740 35.031 31.657 29.380 28.585 1.648 28.693 25.987 1.406 38.745 37.716 35.044 31.701 26.685 1.985 1.903 24.921 2.489 33.624 32.707 30.353 27.464 23.258 22.684 21.901 20.561 20.030 2.997 2.402 29.645 28.811 26.67G 24.102 3.106 25.820 25.03ú 23.034 20.714 18.787 17.595 17.196 3.711 3.918 23.007 22.217 2C-246 18.025 16.244 15.184 14.845 4.528 4.644 21.387 20.569 18.556 16.334 14.593 13.578 13.258 5.272 19.259 5.579 20.135 17.135 14.845 13.093 12.095 11.785 6.222 5.553 18.501 10.990 19.461 16.215 13.807 12.003 1.0.678 7.211 8.221 7.548 9.851 19.218 18.154 15.660 13.093 11.211 10.179 19.267 9.646 8.382 18.102 15.405 12.679 10.717 9.320 9.369 8.821 9.381 1-9.552 18.257 15,288 12,345 10.272 9.158 10.)83 18.583 8.785 9.947 8.436 10.370 20.013 15.327 12.144 11.087 20.491 18.946 12.055 9.747 8.540 8.180 11.181 15.447 11.911 9.571 12.135 21.155 19.465 15.667 12-017 8.310 7.936 12.879 7.744 13.064 21.913 20.061 15.949 12.037 9.450 8.133 13.822 22.758 9.370 7.997 7.595 13.966 29.739 16.28G 12.101 14.739 7.909 7.496 14.697 23.517 21.339 16.588 12.179 9.328 15.481 12.297 9.301 7.400 15.549 24.476 22.121 16.993 7.827 16.346 25.460 22.943 17.435 9.295 7.765 7.326 17.187 16.377 12.439 7.277 7.727 17.050 26.279 23.644 17.827 12.569 9.302 17.878 7.230 17.839 27.237 24.490 18.323 12.742 9.323 7.593 18.572 18.613 28.146 25.324 18.841 12.931 9.356 7.670 7.196 19.457 25.996 9.391 7.659 7.174 19.248 28.850 19.287 13.100 20.102 9.442 7.653 7.155 20.868 23.002 29.616 26.763 19.832 13.316 7.144 21.528 30.283 27.473 13.546 9.502 7.654 20.751 20.384 7.139 21.439 30.842 28.113 20.938 13.788 9.570 7.662 22.387 9.632 22.124 31.221 28.586 21.397 14.000 7.674 7.140 23.122 9.715 7.146 23.795 22.880 31.571 29.073 21.938 14.266 7.693 7.158 23.646 31.811 29.468 22.463 14.545 9.806 7.719 24.568 24.297 31.932 29.724 22.883 14.786 9.888 7.745 7.172 25.229 7.194 25.094 31.990 29-944 23.360 15.087 9.994 7.782 26.139 25.917 31.964 7.825 7,223 26.374 30.071 23.798 15.400 10.109 7.258 26.768 31.866 30.111 24.190 15,724 16, 234 7.875 27.738 27.561 31.737 30.083 7.922 7.291 24.473 16.001 10.344 28.483 23.411 31.541 29.984 24.755 16.485 7.985 7,338 29.407 16.340 29.360 31.314 29.826 24.967 16.683 1G.635 8.055 7.392 30.370 30.186 31.115 29.657 25.088 16.971 16.768 8.119 7.443 31.209 31.224 36.880 29.426 25.166 17-,314 16.937 8.203 7.512 32.263 8.295 7.589 32.303 30.570 29.186 25.172 17.644 11.113 33.358 30.492 28-957 17.955 11.296 7-674 33.426 25.113 8.393 34.498 34.401 30.372 28.785 25.821 18.195 11.455 8.481 7.751 35.489 35.628 30.260 8.593 7.853 36.735 28.609 24.869 18.455 11.653 8.713 7.965 38.054 36.927 30.184 23.471 24.684 18.678 11.860

MACH NO = 20.00 CONE ANGLE = 10.00 ANGLE OF ATTACK = P / P FREE-STREAM AT PLANE ANGLES SZRN L/RN 90. 120. 153. 0. 30. 60. 180. 39.074 30.144 28.387 24.517 18.831 8.819 12.040 8.067 39.218 18.969 39.527 30.122 28.323 24.319 12.261 8.953 8.198 40.694 41.049 30.121 28.295 24.142 19.056 12.483 9.091 8.337 42.230 42.352 30.131 19.389 8.457 43.562 28.291 24.017 12.667 9.208 43.998 30.153 23.899 9.354 28.303 19.087 12.885 8.639 45.234 8.766 45.737 19.047 9.502 47.300 30.182 28.326 23.814 13.096 47.586 30.217 28.357 23.763 18.977 13.296 9.655 8.930 48.877 49.224 30.249 23.741 18.903 13.451 9.785 9.070 50.540 28.388 9.241 51.326 30.287 28.428 23.737 18.804 13.618 9.944 52.675 53.547 30.322 28.479 23.749 18.707 13.758 10.106 9.409 54.930 55.473 30.346 28.5G3 23.768 18.633 13.850 10.227 9.544 56.886 57.891 28.535 23.794 18.556 13.934 9.697 59.341 30.367 10.372 60.433 30.383 28.559 23.824 18.496 13.989 10.508 9.839 61.922 63.003 30.395 28.574 23.855 18.454 14.022 9.958 64.532 10.627 65.152 30.402 28.581 23.879 18.431 10.042 66.714 14.035 10.713 67.747 30.408 28.585 23.902 18.412 14.040 10.800 10.126 69.350 70.371 30.413 28.586 23.921 18.403 14.036 10.871 10.191 72.314 74.264 72.587 28.585 23.933 30.415 18.399 14.027 10.91-9 10.232 75.289 30.417 28.584 23.942 18.398 14.014 10.964 10.267 77.087 78.048 28.582 23.946 18.400 13.998 10.998 10.287 79.809 30.418 89.874 30.419 28.581 23.947 18.403 13.980 11.022 10.294 82.579 28.579 83.287 10.291 85.129 30.419 23.946 18.406 13.966 11.036 86.253 30.420 28.577 23.944 18.410 13.948 11.047 10.279 88.151 89.336 30.429 28.575 23.940 18.415 13.932 11.053 10.259 91.271 91.978 30.421 28.574 23.937 18.419 13.919 11.056 10.239 93.-954 95.258 30.421 28.574 23.933 18.422 13.906 11.057 16.211 97.285 98.668 30.422 28.574 23.929 18.425 13.895 11.056 10.181 100.747 30.422 28.575 23.925 18.427 13.887 11.055 10.156 103.744 101.619 13.880 105.305 30.422 28.576 23.921 18.429 11.052 10.127 107.486 10.101 111.404 30.422 28.57-7 23.918 18.430 13.873 11.050 109.152 23.914 28.578 113.210 30.422 18.431 13.868 11.047 10.078 115.514 116.742 30.423 28.579 23.912 18.431 13.865 11.045 10.061 119.103 121.190 30.423 28.581 23.910 18.430 13.861 11.643 16.045 123.616 125.889 30.425 28.582 23.908 18.428 13.859 11.043 10.033 128.389 28.583 23.907 18.426 13.858 11.042 10.027 132.581 130.018 30.426 135.254 30.427 28.585 23.906 18.423 13.857 11.044 10.023 137.898 11.046 10.0-23 143.561 140.831 30.429 28.587 23.906 18.418 13.858 146.798 30.430 28.589 23.906 18.413 13.860 11.049 10.027 149.611 152.080 28.590 23.906 18.409 13.861 11.052 10.032 154.383 30.432 10.042 161.874 158.866 30.434 28.592 23.907 18.403 13.863 11.057 30.435 28.594 23.908 18.397 13.865 11.062 10.054 169.377 166.186 172.747 30.437 28.596 23.910 18.392 13.866 11.067 10.066 175.369 30.438 28.598 23.912 18.386 13.865 11.072 10.082 184.597 181.244 10.099 194.007 190.511 30.439 28.599 23.915 18.381 13.862 11.077

18.378

13.858

11.081

23.918

201.658

30.439

28.601

10.116 204.311

# NSWC/40L/TR 75-45

MACH MO' = 25.00 CONE ANGLE = 10.00 ANGLE OF ATTACK = 3.01

		P /	P FREE-S	TREAM A	T . P. ANF	ANGLES		
L/RN	3.	30.	60.	90.	120.	150.	180.	SZRN
C7 (11	•	30 •	00.	<b>70 •</b>	1200	1000	100.	D. ((II
.826	71.343	69.467	64.548	58.312	52.601	48.717	47.360	1.396
1.134	65.249	63.524	59.022	53.356	48.217	44.766	43.561	1.758
1.478	58.738	57.170	53.106	48.039	43.493	40.466	39.412	2.158
1.992	50.787	49,388	45.810	41.430	37.595	35.096	34.236	2.57-9
2.732	42.654	41.395	38.210	34.456	31.290	29.301	28.634	3.331
3.483	37.403	36.194	33.158	29.690	26.862	25.146	24.586	4.394
4.324	33.725	32.492	29.436	26.037	23.352	21.777	21.278	4.348
5.390	31.054	29.729	26.512	23.035	20.368	18.845	18.372	6.331
6.349	29.800	28.356	24.911	21.275	18.545	17.012	16.540	7.0.4
7.329	29.250	27.654	23.989	20.048	17.215	15.646	15.164	7999
8.480	29.267	27.457	23.285	19.095	16.100	14.472	13.977	9.168
9.462	29.689	27.679	23.091	18.573	15.413	13.722	13.212	10.165
13.429	30.362	28.148	23.126	18.249	14.905	13.144	12.616	11,147
11.532	31.368	28.907	23.371	18.054	14.481	12.630	12.080	12.267
12.450	32.393	29.696	23.701	18.002	14.224	12.295	11.724	13.200
13.341	33.568	30.605	24.114	18.026		12.033	11.443	14.154
14.342	35.111	31.812	24.682	18.126		11.799	11.187	15.121
15.169	36.552	32.959	25.238	18.258	13.825	11.645	11.014	15.961
15.969	38.060	34.186	25.854	18.425	13.782	11.524	10.876	16.772
16.743	39.594	35.468	26.524	18.622	13.765	11.430	10.754	17.559
17.619	41.361	36.995	27.365	18.884	13.772	11.347	10.661	1-8.448
19.35ů	42.811	38.299	28.130	19.135	13.798	11.295	10.591	19.195
19.065	44.168	39.571	28.926	19.409	13.838	11.257	10.535	19.316
19.886	45.597	40.984	29.885	19.755	13.902	11.228	10.486	20 • 750
20.581	46.665	42.109	30.725	20.074	13.971	11.214	10.455	21 6 4 5 5
21.272	47.575	43.137	31.573	20.413	14.051	11.210	10.433	22.157
22.677	48.425	44.191	32.561	20.833	14.158	11.217	10.416	22.975
22.771	48.972	44.957	33.397	21.214	14.262	11.232	10.414	23.580
23.472	49.357	45.589	34.215	21.614	14.377	11.255	10.418	24.391
24.304	49.612	46.150	35.131	22.105	14.525	11.291	10.431	25.236
25.034	49.678	46.490	35.873	22.549	14.665	11.332	10.451	25.977
25.783	49.617	46.673	36.563	23.012	14.817	11.380	10.479	26.738
26.687	49.401	46.733	37.284	23.57-8	15.011	11.448	10.521	27.656
27.488	49.116	46.652	37.815	24.080	15.190	11.515	18.566	28.469
28.316	48.762	46.459	38.254	24.595	15:381	11.591	10.619	29.313
29.323	48.300	46.116	38.639	25.219	15.623	11.692	10,693	3.0.332
30.228	47.894	45.745	38.852	25.742	15.846	11.789	10.768	31.252
31.169	47.512	45.338	38.954	26.270	16.982	11.897	10.852	32.207
32.137	47.177	44.930	38.946	26.780	16.328	12.013	10.947	33-193
33.311	46.854	44.487	38.810	27.345	16.632	12.161	11.670	34.382
34.363	46.640	44.157	38.598	27.794	16.906	12.299	11.189	35 - 450
35.466	46.483	43.883	38.317	28.202	17.195	12.448	11.322	36.573
36.827	46.368	43.644	37.931	28.615	17.551	12.637	11.494	37.952
38.069	46.318	43.509	37.579	28.902	1:7:•:87:3	12.812	11.659	39.214
39.362	46.307	43.437	37.246	29.115	18:202	12.996	11.837	40.526

MACH NO = 25.00 CONE ANGLE = 10.00 ANGLE OF ATTACK = 3.01

		:₽ /	P FREE-ST	FREAM A	T PLANE	ANGLES		
し/ペパ	0.	3Ĉ.	60.	90.	120.	150.	186.	S/RN
47.921	46.326	43.415	3€.908	29.265	18.588	13.218	12.058	42.113
42.312	46.361	43.431	3:6.674	29.313	18,920	13.417	12.261	43.522
43.762	46.409	43.470	35.495	29.293	19.250	13.622	12.474	44.995
45.545	46.476	43.531	36.356	29.197	19.626	13.872	12.738	46.805
47.165	46.541	43.594	36.292	29.066	19.936	14.094	12.976	48.450
43.886	46.607	43,663	36.270	28.903	20.229	14.323	13.224	50.197
51.639	46.680	43.759	36,285	28.693	20.539	14.600	13.525	52.384
52.974	46.733	43.823	36.323	28.519	20.764	14.834	13.780	54.348
54.976	46.774	43.888	36.374	28.363	20.947	15.064	14.029	56.381
57.056	46.802	43938	36.429	28.231	21.086	15.286	14.268	58.493
59.600	46.824	43-977	36.498	28.111	21.198	15.532	14.530	6176
61.889	46.835	43.993	36.555	28.037	21.256	15:4728	14.737	63-400
64.197	46.843	44000	36.609	27.992	21.284	15.900	14.912	65.744
55.893	46.850	44.000	36.662	27.964	21.287	16.071	15.081	68.492
69.217	46.853	43.935	₹6.694	27.955	21.274	16.192	15.195	70.342
71.560	46.854	43:990	36,716	27.956	21.248	16.292	15.284	73-, 221
74.328	46.855	43.985	36.731	27.962	21.210	16.384	15.357	76. 32
76.739	46.855	43.979	36.734	27.972	21.173	16.444	15.395	78.480
79.192	46.855	43.973	36.732	27.983	21.134	16.490	15.413	80.971
82.117	46.857	43968	36.725	27.998	21.091	16.527	15.41.2	83.941
84.687	46.858	43.964	3.6.717	28.009	21.056	16.548	15.395	86.551
87.322	46.850	43.962	36.709	28.019	21.024	16.550	15.365	89.226
90.488	46.862	43.960	3:6,698	28.031	20.993	16.565	15.318	92.441
93.289	46.863	43,961	3:6.690	28.038	20.970	16.566	15.27û	95.286
96.180	46.864	43.963	3-6-683	28.044	26.951	16.561	15.218	98.221
90.675	46.864	43.966	36.674	28.049	20.933	16.552	15.155	101.770
102.786	46.864	43. 969	3-6-658	28.053	20.921	16.542	15,101	164.929
106.013	46.864	43-971	36.662	28.055	20.910	16.531	15-049	108.206
109.366	46.864	43:-974	36.657	28.057	20.900	16.520	15.001	111.615
113.449	46.864	43: 976	36.653	28.058	20.890	15.508	14.950	115.756
117.109	46.865	43.977	36.650	28.058	20.881	16.500	14.912	119-473
121.929	46.865	43-978	36.649	28.058	20.873	16.493	14,881	123.352
125.657	46.866	43. 98 g	36.647	28.057	20.865	16.488	14.854	
129.822	46.858	43.981	36.647	28.055	20.860	16.486	14.838	_
134.243	46.859	43.983	3-6.647	28.051	20.857	16.487		136.871
139.688	46.871	43.984	3-6-647	28.045	20.855	16.490		14-2.46
144.625	46.873	43.986	3:6.647	28.040	20.857	16.494		147.413
149.835	46.876	43.987	36.647	28.033	20.860	16.500	-	152.704
156.297	46.879	43.990	36.648	28.024	20.867	16.508		159.266
152.202	46.881	43.992	36.649	28.016	20.874	16.516		165-261
158.48-2	46.833	43.994	36.650	28.008	20.880	16.523		171.539
176.344	46.885	43.996	36.653	27.998	20.886	16.532	14.930	179.522
183.598	46.887	43: 999	36.655	27.996	20.889	16.539		186,788
191.391	46.888	44.031	36.653	27.983	20.890	16.546	14-987	
201.256	46.889	44.803	36.661	27.976	20.886	16.554	15.021	264.918

#### NSHC/HOL/TR 75-45

MACH NO = 30.00 CONE ANGLE = 10.00 ANGLE OF ATTACK = P / P FREE-STREAM AT PLANE ANGLES L/RN 0. 30. 60. 90. 120. S/RN 150. 180. .826 102.426 99.725 33.696 75.481 69.911 67.969 92.654 1.396 93.622 91.144 84.675 76.536 69.158 64.198 62.468 1.133 1.798 1.555 82.275 80.969 74.365 57.269 60.927 56.715 55.251 2.136 2.184 59.088 67.178 62.254 56.274 51.088 47.754 46.621 2.775 2.844 59.613 57.834 53.330 48.G47 43.614 40.842 39.910 3.445 3.746 51.429 34.175 49.698 45.371 40.478 36.536 33.416 4.361 4.759 46.165 31.276 29.080 44.359 39.928 35.065 28.390 5.390 5.688 43.451 41.514 36.841 31.833 28.021 25.860 25.192 6.333 34.559 7.475 6.812 41.811 39.655 29.249 25.311 23.115 22.441 7.953 41.367 38.930 27.552 21.154 20.464 33.279 23.417 8.633 32.703 9.092 41.772 39.012 22.682 19.727 9.789 26.468 19.014 10.055 42.572 39.526 32.611 25.885 21.252 18.803 18.068 10.767 11.154 43.851 40.462 32.829 25.495 20.551 17.981 17.216 11.883 45.429 12,219 41.660 33.284 25.330 20.059 17-364 16.567 12.764 16.133 13.100 47.017 42.873 33.807 25.316 19.761 16.958 13.860 14.091 44.587 49.135 34.543 25.406 19.519 16.590 15.735 14.865 15.040 51.488 46.356 35.405 25.582 19.362 16.309 15.425 15.829 15.950 53.996 48.375 19.270 16.093 36.384 25.825 15.182 16.754 56.195 50.199 19.231 15.949 16.703 37.309 26.678 15.014 17.518 17.552 58.740 52.380 19.222 15.819 38.477 25.419 14.855 18.380 18.374 61.179 54.561 39.724 26.806 19.246 15.720 14.730 19.215 19.062 63.130 56.386 40.845 27.171 19.289 15.657 14.643 19.914 55.190 19.850 58.418 42.198 27.636 19.363 15.605 14.563 20.714 66.978 23.627 60.392 43.585 28.139 19,459 15.572 14.582 21.552 21.287 14.464 68.269 61.769 44.788 28.600 19.558 15.557 22.172 22.055 69.482 63.281 46.194 29.172 19.692 15.555 14.433 22.952 70.380 15.569 22.826 64.555 47.584 29.781 19.846 14.417 23.735 65.575 23.605 70.972 48.941 30.427 20.019 15.596 14.414 24.526 24.283 71.251 66,241 50.061 31.012 20.184 15.631 14.423 25.215 25.092 71.328 66.776 51.299 31.732 20.396 15.684 14.444 26.337 25.926 14.479 71:158 67.C51 52.441 32,492 20.638 15.752 26.884 26.664 70.839 67.685 53.321 33.175 20.849 15.822 14.520 27.532 27.549 70.307 66.905 33.999 15.917 14.580 54.207 21.124 28.531 28.469 21.424 69.653 66.511 54.920 34.851 16.028 14.655 29.465 29.431 68.944 65.940 55.441 35.725 21.751 16.156 14.746 30.442 39.292 58.341 65.353 55.722 36.484 22.052 15.280 14.837 31.317 31.328 67.704 64.631 55.849 37.355 22.424 16.440 14.960 32.368 32.398 57.165 63.931 55.767 38.195 22.817 16.615 15.100 33.455 23.174 33.350 66.791 55.543 16.781 63.385 38.880 15.236 34.422 34.510 66.460 55.130 16.991 62.841 39.626 23.614 15.415 35.600 35.733 66.240 62.414 54.592 40.297 17.222 15.618 24.082 36.841 37.039 66.117 62.114 53.983 40.873 24.581 17.476 15.848 38.159 38.206 66.676 61.957 53.452 41.272 25.031 17.711 16.069 39.352 66.088 52.889 25.563 17.996 16.345 40.785 39.617 61.882 41.603

41.786

26.101

18.295

16.643

42.267

66.138

61.887

52.414

41.076

MACH NO = 30.00 CONE ANGLE = 10.00 ANGLE OF ATTACK = 3.00

		P /	P FREE-ST	REAM AT	PLANE	ANGLES		
LIRN	0.	3₫•	60.	90.	120.	150.	180.	S/RN
42.373	66.205	61.935	52.090	44 972	26 561.	48 567	1 5 046	43.583
43.951	66.301	62.021	51.813	41.832 41.768	26.564 27.103	18.563 18.888	16.916 17.255	45.187
45.615	66.411	62.129	51.644	41.596	27.633	19.229	17.617	46.876
47.122	66.512	62.233	51.574	41.381	28.074	19.534	17.944	48.406
48.991	66.625	62.362	51.565	41.079	28.562	19.903	18.347	50.304
53.996	66.728	62.496	51.613	40.751	29.007	20.287	18.768	52.339
53.084	66.810	62.621	51.700	46.443	29.384	20.666	19.185	54.466
54.930	66.862	62.710	51.787	40.210	29.646	20.985	19.534	56.335
57.165	66.901	62.785	51.895	39.987	29.879	21.344	19.927	58.604
59.500	66.924	62.831	52.006	39.818	30.038	21.688	20.298	60.975
61.598	66.933	62.846	52.096	39.718	30.121	21.965	20.594	63.105
64.119	66.938	62.846	52.191	39.646	30.164	22.257	20.898	65.665
66.638	66.944	62.839	52.270	39.617	30.161	22.507	21.148	68.223
69.163	56.944	62.826	52.321	39.612	30.125	22.715	21.345	70.788
71.342	66.942	62.814	52.349	39.622	30.076	22.863	21.476	72.999
73.907	66.941	62.862	52.367	39.642	30.006	23.003	21.587	75.605
76.508	66.941	62.790	52.366	39.666	29.930	23.110	21.656	7-8.246
78.773	66.941	62.779	52.357	39.688	29.864	23.181	21.684	80.545
81.464	66.944	62.770	52.342	39.716	29.791	23.241	21.686	83.278
84.218	66.948	62.764	52.325	39.740	29:725	23.280	21.659	86.374
87.042	66.952	62.761	52.306	39.760	29.668	23.302	21.607	88.342
89.527	66.955	62.761	52.290	39.775	29.628	23.309	21.548	91.465
92.507	66.958	62.765	52.275	39.789	29.588	23.306	21.466	94.492
95.586	66.961	62.770	52.261	39.799	29.557	23.294	21.373	97.518
98.310	66.962	62.776	52.250	39.803	29.537	23.278	21.290	100.384
101.596	66.961	62.782	52.238	39.807	29.517	23.255	21.192	103.721
105.009	66.961	62.787	52.229	39.811	29.499	23.230	21.095	187-186
108.043	66.961	62.790	52.223	39.813	29,486	23.209	21.016	110.267
111.720	66.960	62.794	52.219	39.814	29.472	23.186		114.081
115.556 119.564	66.960 66.961	62.796 62.798	52.216 52.215	39.815	29.456	23.165	20.857	-
123.147	66.961	62.799	52.215	39.817 39.817	29.439 29.425	23.149 23.139		121.966 125.604
127.512	66.962	62.800	52.215	39.817	29.410	23.139		130.536
132.992	66.963	62.801	52.218	39.813	29.395	23.130		134.687
136.203	66.965	62.802	52.218	39.868	29.385	23.132		138.861
141.233	66.968	62.803	52.218	39.801	29.377	23.138		143.968
146.536	66.971	62.804	52.219	39.793	29.375	23.146		149.354
152.139	66.975	62.806	52.219	39.783	29.379	23.157		155.344
157.204	66.978	62.808	52.220	39.774	29.386	23.167		160,187
163.450	66.982	62.810	52.220	39.762	29.398	23.180		166,529
170.098	66.985	62.814	52.222	39.750	29.413	23.192		173.280
176.153	66.987	62.816	52.223	39.739	29.427	23.203		179.427
183.681	66.990	62.820	52.225	39.727	29.442	23.214		187.572
191.774	66.992	62.823	52.228	39.715	29.452	23.225	-	195.289
200.508	66.993	62.826	52.232	39.704	29.455	23.235	21.002	204.158

МДО	CH NO =	3.50	CONE AN	GLE =	15.00	ANGLE	OF AT	TACK =	3.05
		p /	P FREE-	STREAL	ч ат	PLANE	ANGLES		
LZRN	<b>0</b> •	30.	6.0		90.	120.	150.	180.	S/RN
LAKIN	•	304	0.00			•			
.74-1	2.673	2.618	2.471	2.	283	2.106	1.984	1.941	1.369
.822	2.664	2.607	2.456		262	2:082	1.958	1.914	
· 9i5	2.797	2.650	2.498		302	2.120	1.995	1.951	1.489 1.651
1.072	2.798	2.650	2.498		333	2.123	2.000	1.957 1.944	1.832
1.246	2.592	2.633	2.481		286	2.108	1,987	1.926	2.329
1.437	2.665	2.607			263 276	2.087	1.946	1.905	
1.544	2.635	2.577			236	2.003	1.923	1.883	2.475
1.867	2.606	2.547			208 176	2.007	1.896	1.858	2.723
2.107	2.570	2.513	2-363 2-325		140	1.975	1.866	1.829	2.991
2.366	2.534	2.476			124	1.957	1.848	1.810	3.281
2.646	2.527	2.467 2.464			117	1.949	1.839	1.801	3.591
2.945	2.524 2.524	2.463			119	1.942	1.833	1.796	3.925
3.263 3.600	2.533	2.470			108	1.936	1.827	1.790	
3.956	2.546	2,482			112	1.936	1.823	1.786	4.637
4.329	2.563	2.497			119	1.941	1.825	1.787	
4.720	2.532	2.515	-		129	1.948	1.831	1.792	5.428
5.128	2.604	2.534			141	1.956	1.839	1.800	
5.553	2.626	2.555	2.373		154	1.966	1.847		
5.995	2.548	2.576			169	1.978	1.857		
6.455	2.670	2.597			183	1.990	1.868	1.828	
6.933	2.692	2.618			198	2.003	1.879		
7.439	2.712	2.638		_	213	2.015	1.891	-	
7.946	2.732	2.656			228	2.027 2.040	1.913		
8.483	2.750	2.674			241 255	2.052	1.924		
9.043	2.766	2.690			267	2.063	1.935		
9.627	2.781	2.704 2.718			279	2.074	1.945		11.140
10.237	2.794	2.730	_		290	2.084	1.955		11.880
10.875	2.806 2.816	2.740			300	2.093	1.964		12.493
11.544	2.825	2.750			310	2.102	1.973		
12.983	2.833	2.758			319	2.110	1.981		
13.756	2.846	2.765			.327	2.118	1.989	1.946	
14.556	2.846	2.771	-		.334	2.125	1.995		15.612
15.387	2.851	2.777	-	2 2	.340	2.132	2.002		16.472
16.250	2.855	2.78	2.58		.346	2.137	2.007		17.364
17.146	2.858	2.78			• 352	2.143	2.013		
1.3.078	2.861	2.78			• 356	2.147	2.017		
19.047	2.864	2.79			.360	2.152	2.022		_
20.057	2.865				.364	2.156	2.026		
21.108	2.867	2.79			.367	2.159 2.162	2.029		
22.204	2.868				.370 .773	2.165	2.035		
23.345					.373 .375	2.167	2.038	_ =	_
24.536					.377	2.170	2.040		_
25.777	2.871	2019	2 6.01		+0.7	C 4-7 , A	_ , • , •		

MA	CH NO =	3.50	CONE ANGL	= 15.0	J ANGL	E OF AT'	ACK =	3.03
1.400			P FPEE-ST			ANGLES		
L/RN	0 •	30.	60.	90•	120.	150.	180.	SZŖN
27.072	2.872	2.800	2.612	2.378	2 472	2 062	2 224	0.9. 11.6.0
28.423	2.872	2.801	2.613		2.172 2.173	2.042	2.001	
29.832	2.873	2.801		2.380		2.044	2.002	
31.303	2.873	2.802	2.614	2.381	2.175	2.046	2.604	
32.839	2.873	2.802	2.615	2.382	2.176	2.047	2.005	
34.442	2.37.4	2.852	2.615 2.615	2.383	2.178	2.048	2.006	
36.115	2.874	2.803	2.615	2.384	2.179	2.049	2.607	
37.852	2.874	2.803	2.616	2.3A5	2.180	2.050	2.008	37.930
39.635	2.875	2.803	2.615	2.385	2.181	2.051	2.009	
41.590	2.875	2.833		2.386	2.182	2.052	2.009	
43.578	2.875	2.803	2.617	2.386	2.182	2.052	2.010	43.599
45.655	2.875	2.804	2.617	2.387 2.387	2.183	2.053	2.010	45.657
47.824	2.875	2.804	2.617	2.387	2.183	2.053		47.307
50.088	2.876	2.854		2.387	2.184	2.354	2.011	50.352
52.453	2.876	2.864	2.617	2.387	2.184	2.054	2.012	52.397
54.923		2.884		2 • 3 <u>9 7</u> 2 • 3 8 8	2.185 2.185	2.055	2.012	
57.503	2.876	2.804		2 + 3 9 0	2.185	2.055	2.012	
60.197		2.804				2.055	2.012	
63.011	2.876		2.618 2.618	2.338	2.185	2.056	2.013	
65.950	287.6			2 • 3.88	2.186	2.056	2.013	
69.020	2.877	2 985	2 6 4 8 5 • 0 T 0	2.388	2.186	2.056	2.013	
72.226	2 977	2 805	2.618	2.388 2.388	2.186	2.055	2.013	
75.574	2 • 877		2.618		2.186	2.057	2.014	
79.872	2.87.7		2.618	2.388 2.388	2.186 2.186	2.057 2.057	2.014	
82.725	2.877	2.805		2.388	2.186	2.057		
85.540	-2.877	2.805	2.618	2.388	2.186	2.057		
93.525	2.877	2.805	2.618	2.388	2.186	2.057	2.014	
94.688	2.877	2.805	2.618	2.388	2.186	2.057	2.014	
99.036	2.877	2.805	2.618	2.388	2.186	2.057	-	103.271
103.577	2877	2.805	2.618	2.388	2.186	2.057		167.773
108.321	2.877	2.806	2.618	2.388	2.186	2.057		112.533
113.275	2.877	2.806	2.618	2.388	2.186	2.057		117.813
113.450	2 • 87 8	2.836	2.618	2.388	2.186	2.057		123.173
123.856	2 878					2.057		128.767
129.502	2.878	2.836	2.618	2.38Å	2.186	2.057	2.015	
135.400	2.878	2.806	2.618	2.388	2.186	2.057		140.718
141.560	2.878	2.896	2.618	2.388	2.186	2.057		147. 95
147.994	2.878	2.806	2.619	2.388	2.186	2.057	_	153.756
154.715	2.878	2.836	2.619	2.388	2.186	2.057		160.715
161.735	2.878	2.896	2.619	2.388	2.186	2.057		167.982
169.058	2.878	2.806	2.619	2.388	2.186	2.057		175.574
176.728	2.878	2,805	2.619	2.388	2.186	2.957	2.015	
184.728	2.878	2.806	2.619	2.388	2.186	2.057		191.786
193.085	2.878	2.806	2.619	2.388	2.186	2.057		200.438
201.814	2.878	2.836	2.619	2.388	2.186	2.057		209.475
	-				-			

MAC	H NO.=	5.00	CONE ANGL	E = 15.00	) ANGLE	OF ATT	ACK =	3 • 0 ₹
		, D /	P FREE-ST	OFAM AT	PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150.	180.	S/RN
714	4.681	4.576	4.299	3.944	3.613	3.386	3.306	1.309
.741	4.637	4.531	4.250	3.891	3.558	3.330	3.249	1.431
.859	4.637	4.468	4.192	3.840	3.516	3.295	3.218	1.574
.997	4.479	4.374	4.100	3.753	3.435	3.220	3.144	1.731
1.149	4.335	4.231	3.963	3.625	3.317	3.110	3.038	1.964
1.561	4.223	4.121	3.856	3.524	3.225	3.025	2.955	2.157
1.832	4.086	3.984	3.721	3.394	3.103	2.911	2.844	2.4-38
2.128	3.958	3.857		3.273	2.988	2.801	2.737	2.745
2.368	3.871	3.768	3.504	3.184	2.904	2.721	2.659	2.993
2.711	3.814	3.707		3.105	2.822	2.640	2.577	
2.984	3.784	3.675	3.397	3.062	2.775	2.591	2.529	3.631
3.368	3.770	3.655		3.018	2.723	2.536	2.473	4.328
3.668	3.776	3.657		2.999	2.698	2.504	2.440	4.340
4.084	3.800	3.675		. 2.988	2.674	2.476	2.410	
4.515	3.841	3.710	3.378	2.990	2.664	2,461	2.393	
4.847	3.879	3.743	3.400	2.999	2.663	2.454	2.385	-
5.299	3.938	3.796		3.020	2.670	2.453	2.382	
5.646	3.986	3.839	3.470	3.039	2.680	2.457	2.383	
5.118	4.053	3.901		3.070	2.698	2.467	2.391	
6.478	4.104	3.948		3.096	2.714	2.477	2.400	
6.969	4.172	4.012	3.606	3.132	2.738	2.494	2.414	
7.472	4.237	4.073		3.171	2.765	2.514	2.432 2.446	-
7.857	4.283	4.118			2.786	2.530	2.468	-
8.381	4.348	4.174		3.239	2.815	2.554 2.572	2.485	
8.785	4.379	4.212		3.268	2.837	2.536	2.568	
9.336	4.427	4.260		3.306	2.867 2.889	2.615	2.525	
9.760	4.459	4.292		3.334	2.009	2.640	2.549	-
10.343	4.497	4.331		3.369	2.947	2.665	2.573	
17.946	4.530	4.365		3.403 3.426	2.968	2.683	2.598	_
11.415	4.552	4.388			2.994	2.707	2.613	
12.063	4.578	4.415			3.013	2.724	2.630	
12.568	4.595	4.432		3.501	3.038	2.747	2.652	
13.272	4.613	4.466			3.055			14.853
13.824	4.624	4.479		3.540	3.077	2.785	2.689	
14.595	4.635 4.642	4.489		3.560	3.097	2.805	2.709	
15.413	4.646	4.494		3.573	3.111	2.819	2.724	17.167
16.059	4.649	4.499		3.589	3.129	2.837	2.742	
16.970 17.693	4.650	4.50		3.599	3.141	2.850	2.755	
18.716	4.651	4.563		3.611	3.155	2.866	2.771	
19.531	4.652	4.504	_	3.619	3.165	2.876	2.782	
20.687	4.652	4.505		3.627	3.177	2.890	2.796	
21.922	4.652	4.50		3.633	3.188	2.901	2.808	23.237
22.887	4.652			3.637	3.195	2.909	2.817	
24.230	4.652			3.640	3.202	2.919	2.826	25.626

## NSHC/HOL/TR 75-45

MACH	NO =	5.00 C	ONE ANGLE	= 15.00	ANGLE	OF ATT	ACK =	<b>5 - ย</b> บ
				EAM AT	PLANE	ANGLES		
			FREE-STR		120.	150.	180.	S/RN
L/RN	0 •	30.	60•	90•	1200	2,000		
		. =0.0	1. 421.	3.642	3.207	2.925	2.833	26.714
25.280	4.652	4.506	4.124 4.124	3.645	3.212	2.932	2.840	28.227
26.742	4.652	4.506	4.124	3.646	3.215	2.936	2.845	29.412
27.836	4.652	4.506	4.125	3.648	3.218	2.941	2.850	31.060
29.479	4.652	4.506	4.125	3.649	3.221	2.945	2.855	32.792
31.152	4.653	4.506	4.125	3.650	3,223	2.947	2.857	34.148
32.462	4.653	4.506	4.125	3.650	3.224	2.949	2.860	36.237
34.285	4.654	4.507	4.125	3.651	3.226	2.951	2.862	
35.714	4.654	4.507	4.125	3.651	3.227	2.952	2.863	39.574
37.702	4.655	4.507 4.508	4.125	3.651	3.228	2.953	2.864	
39.260	4.655		4.125	3.652	3.229	2.954	2.864	43.432
41.429	4.656	4.508	4.126	3.652	3.230	2.955	2.865	45.791
43.708	4.656	4.508	4.126	3.652	3.230	2.956	2.865	47.639
45.493	4.657	4.509	4.126	3.652	3.231	2.957	2.866	50.213
47.979	4.657	4.509 4.510	4.126	3.652	3.231	2.957	2.866	52.229
49.926	4.658	4.510	4.126	3.652	3.232	2.958	2.867	55.336
52.638	4.658	4.510	4.126	3.652	3.232	2.958	2.867	57.235
54.762	4.658	4.511	4.126	3.652	3.232	2.959	2.867	60.298
57.720	4.659	4.511	4.127	3.652	3.233	2.959	2.868	63.517
60.830	4.659	4.511	4.127	3.652	3.233	2.959	2.868	
63.265	4.660	4.512	4.127	3.652	3.233	2.960	2.868	69.551
66.658	4.660	4.512	4.127	3.652	3.233	2.960	2.869	72.302
69.316	4.660 4.661	4.512	4.127	3.652	3.233	2.960	2.869	
73.817	4.661	4.513	4.127	3.652	3.233	2.960	2.869	
75.917	4.661	4.513	4.128	3.652	3.233	2.961	2.869	
79.956	4.661	4.513	4.128	3.652	3.233	2.961	2.869	
84.201	4.662	4.513	4.128	3.652	3.233	2.961	2.870	
87.528	4.662	4.513	4.128	3.652	3.233	2.961	2.870	
92.160 95.790	4.662	4.514	4.128	3.652	3.233	2.961	2.870	
100.846	4.662	4.514	4.128	3.652	3,233	2.961	2.870	
104.806	4.662	4.514	4.128	3.652	3.233	2.961	2.870	
110.323	4.662	4.514	4.129	3.652	3.233	2.961	2.870	114.757
116.123	4.662	4.514	4.129	3.652	3.233	2.962		120.761
120.666	4.662	4.514	4.129	3.652	3.233	2.962		125.465
126.995	4.662	4.514	4.129	3.652	3.233	2.962	2.8/1	132.317
131.954	4.662	4.514	4.129	3.653	3.233	2.962	2.871	137.151
138.861	4.663	4.514	4.129	3.653	3.233	2.962	2.871	144.301
144.272	4.663	4.514	4.129	3.653	3.233	2.962	2.8/1	149.983
151.810	4.663	4.515	4.129	3.653	3.233	2.962	2.87	157.707
159.734	4.663	4.515	4.129	3.653	3.233	2.962	2.0/3	165.918
165.942	4.663		4.129	3,653	3.233	2.962	2.87	1 172.337
174.589	4.663		4.129	3.653	3.233	2.962	2.0/	1 181.290 1 188.304
181.364	4.663		4.130	3.653	3.233	2.962	2.07	1 198.074
190.802	4.663		4.130	3.653	3.233	2.962	2 97	0 208.345
200.723	4.663		4.130	3.653	3.233	2.962	2.01	U- 2001347
F A A 4 - 1 F A	. • •							

MACH NO = 10.00 CONE ANGLE = 15.00 ANGLE OF ATTACK = 3.00

		p. /	P FPEE-S	STREAM	AT PLANE	ANGLES		
L/RN	¹ <b>0</b> •	30.	60.	90.	120.		180.	S/RN
• • • • • • • • • • • • • • • • • • • •	•	000		,,,,			-	
.741	16.345	15.952	14.917	13,595	12.375	11.541	11.249	1.389
.929	15.688	15.304	14.296	13.0-17		11.044	16.764	1.503
1.108	14.985	14.609	13.630	12.395	11.273	10.517	10.253	1.589
1.365	14.040	13.679	12.744	11.576		9.821	9.575	1.955
1.658	13.126	12.775	11.874	10.760	9.772	9.119	8.893	2.259
1.985	12.327	11.981	11.098	10.019	9.076	8.462	8.251	2.596
2.342	11.618	11.272	10.394	9.341	8.438	7.860	7.664	2.966
2.806	11.690	16.728	9.816	8.744	7.840	7.271	7.080	3.447
3.217	10.823	10.438	9.477	8.368		6,875	6.685	3.872
3.640	10.707	10.294	9.271	8.163		6.562	6.369	4.318
4.072	10.713	10.266	9.168	7.930		6 <b>.3</b> 23	6.125	4.757
4.507	10.821	10.335	9.150	7.829		6.142	5.936	5.207
4.942	11.509	10.481	9.201	7.789		6.011	5.795	5.658
5.463	11.313	10.734	9.333	7.800		5.905	5.679	6.197
5.893	11.618	10.991	9.489	7.851		5.850	5.613	6.643
6.320	11.926	11.271	9.675	7.931		5.818	5.571	7.184
6.742	12.245	11.562	9.882	8.033		5.805	5.547	7.521
7.150	12.560	11.852	10.100	8.152		5.808	5.538	7.954
7.573	12.870	12.137		8.285		5.824	5.542	8.381
7.981	13.176	12.420	10.545	8.425		5.851	5.556	8.805
3.467	13.537	12.754		8.601		5.896	5.586	9.308
8.859	13.827	13.027	,	8.751		5.941	5.619	9.724
9,269	14.101	13.291		8.902		5.993	5.659	10.138
9.670	14.353	13.541		9.054		6.051	5.705	10.552
19.071	14.578	13.772	11.670	9.206		6.113	5.755	10.968
19.475	14.773	13:981		9.358		6.180	5.811	11.386
17.965	14.964	14.197		9.541		6.264	5.883 5.946	11.894
11.381	15.087			9.693		6.338		12.324 12.763
11.805	15.179	14.454		9.844		6.415	6.013	13.211
12.238	15.242	14.555		9.994		6.495 6.578	6.084 6.158	13.67.2
12.683	15.279	14.619		10-140	_	6.664	6.234	14.147
13.141	15.294	14.659		10.282	-	6.771	6.330	14.738
13.713	15.288	14.677		10.444 10.569		6.863	6.414	15.252
14.209 14.726	15.269 15.241	14.673	13.048	10.584		6.957	6.501	15.787
15.266	15.298	14.633	13.068	13.786	- 4	7.054	6.590	16.347
15.833	15.200	14.598		18.872		7.153	6.683	16.933
15.428	15.171	14.564	13.060	10.942		7.253	6.778	17.549
17.054	15.134	14.504		10.995		7.354	6.875	18.197
17.848	15.055	14.484		11.035		7.47.5	6.993	19.19
18.549	15.026	14.451	12.977	11.052		7.573	7.091	19.745
19.289	15.028	14.423	12.946	11.055		7.669	7.188	20.511
20.070	14:986	14.408		11.048		7:761	7.284	
23.898	14.975	14.385		11.033	_	7:846	7.375	22.169
21.755	14.970	14.374		11.814		7.923	7.462	
- 1 - 1 - 1 - 1	T4. 21.0	7-4014	12,000	TITULT	71671	, , , , ,		W, U V , U T

MACH NO = 10.00CONE ANGLE = 15.00 ANGLE OF ATTACK = P / P FREE-STREAM AT PLANE ANGLES LIRN 0. 30. 60. 90. 120. 150. 180. S/RN 22.86 G 14,969 14.369 12.839 10.988 9.264 8.004 24.208 7.558 23.831 14.972 14.369 16.967 9.270 8.358 12.826 7.628 25.214 14.978 12.818 24.849 16.947 9.269 8.098 7.686 14.373 26.267 14.984 25.919 10.929 9.262 8.125 14.378 12.814 7.733 27.375 27.031 14.992 14.385 12.814 10.915 9.251 8.142 7.766 28.526 7-.787 14.392 28.184 15.000 12.818 10.904 9.239 8.149 29,723 23.620 15.009 14.401 12.823 10.895 9.224 8.147 7.797 31.207 9.213 8.140 7.797 30.865 15.316 14.407 12.828 10.891 32.495 32.160 15.223 14.414 12.834 10.889 9.203 8.139 7.792 33.336 35.235 33.511 15.028 14.419 12.839 10.890 9.195 8.119 7.782 8.108 34.927 14.424 15.032 12.844 10.891 9.188 7.770 36.700 36.415 15.036 14.428 12.848 10.894 9.183 8.097 7.757 38.241 37.984 9.179 8.087 7.744 15.839 14.431 12.852 19.897 39.366 7.729 39.991 15.041 14.433 12.856 10.901 9.177 8.076 41.944 41.790 14.435 10.905 9.177 7.718 43.796 15.043 12.859 8.069 43.690 15.044 14.436 12.861 16.998 9.178 8.064 7.708 45.773 45.736 15.045 14.437 12.862 10.916 9.180 8.060 7.700 47.992 47.937 15.346 14.438 12.863 10.913 9.182 8.057 7.693 50.179 50.311 15.047 14.439 12.864 10.915 9.185 8.057 7.689 52.623 7.685 53.421 15.048 14.439 12.864 10.917 9.188 8.058 55.847 56.26 C 15.149 9.191 14.440 12.864 10.918 8.060 7.685 58.787 59.300 15.050 14.441 10.918 9.194 7.686 12.864 8.063 61.933 62.495 15.352 14.443 12.865 16.919 9.196 8.066 7.688 65.241 65.853 15.053 14.445 12.865 10.929 9.199 8.070 7.691 68,718 69.384 15.055 14.446 12.866 16.919 9.201 8.073 7.694 72.373 73.859 15.056 14.448 12.867 10.919 9.202 8.077 7.697 77.307 12.868 77.800 14.449 9.203 15.058 10.919 8.079 7.700 81.186 81.941 1-5.059 12.869 7.702 85.374 14.450 19.919 9.203 8.081 86.295 15.060 14.451 12.878 10.919 9.203 8.083 7.704 89.881 90.873 15.061 14.452 12.871 16.919 9.203 8.085 7.705 94.523 95.684 9.203 15.061 14.453 12.872 10.919 8.085 7.707 99.551 12.873 100.743 14.454 9.202 8.086 15.062 10.919 7.768 154.838 107.156 15.063 14.454 1.2-374 10.919 9.201 8.386 7.708 111.478 112.803 12.874 14.455 9.201 8.387 7.709 117.324 15.063 10.920 7.7-09 123.475 118.739 15.063 14.455 12.875 10.920 9.201 8.085 124.989 15.063 14.455 12.875 10.920 9.200 8.086 7.709 129.931 131.541 15.064 14.456 12.876 10.921 9.200 8.986 7.709 136.723 138.439 15.064 14.456 12.876 10.921 9.200 8.985 7.709 143.864 147.185 15.064 14.456 12.877 16.922 9.200 8.385 7.709 152.919 154.886 15.064 14.456 12.877 10.922 2.200 8.085 7.708 160.891 162.981 15.064 14.456 12.877 10.923 9.200 8.034 7.708 169.272 9.205 11.923 171.493 15.064 14.456 12.877 8.094 7-7-38 178. 84 14.456 9.200 189.441 15.064 1-2.877 16.923 8.084 7-708 187.348 189.848 15.064 14.456 12.877 10.924 9.200 8.084 7.707 197.187 201.777 15.064 14.456 12.877 10.924 9.201 8.084 7.707 209.436

MACH NO = 15.00 FONE ANGLE = 15.03 ANGLE OF ATTACK = 3.01

		P /	P FREE-S	TREAM AT	PLANE	ANGLES		
L/RN	0 •	32.	60.	96.	120.	150.	188.	SZRN
	•	• • • • • • • • • • • • • • • • • • • •		•				
.741	35.758	34.884	32.589	29.662	26.961	25.118	24.473	1.309
.966	33.758	32.915	36.710	27.919	25.369	23.643	23.039	1.542
1.196	31.634	33.823	28.715	26.066	23.667	22.058	21.497	1.780
1.519	29.004	28.233	26.243	23.776	21.576	20.117	19.610	2.114
1.955	26.303	25.555	23.645	21.318	19.285	17-963	17.509	2.565
2.374	24.378	23.627	21.732	19.478	17.554	16.330	15.916	2.999
2.828	23.138	22.357	26.400	18.129	16.207	15.006	14.603	3.470
3.306	22.403	21.562	19.477	17.092	15.143	13.943	13.544	3.964
3.879	22.101	21.165	18.877	16.314	14.256	13.012	12.607	4.557
4.373	22.225	21.188	18.679	15.915	13.736	12.435	12.013	5.169
4.864	22.625	21.472	18.707	15.709	13.386	12.817	1.1.575	5.578
5.350	23.227	21.954	18.913	15.651	13.164	11.720	11.257	6.380
5.905	24.031	22.682	19.320	15.728	13.029	11.484	10.995	6.655
5.370	24.859	23.373	19.766	15.888	12.997	11.353	10.842	7.137
6.825	25.644	24.679	20.261	16.112	13.024	11.287	10.743	7.607
7.269	26.440	24.791	26.779	16.382	13.097	11.260	1-0.686	8.167
7.773	27.398	25.648	21.393	16.733	13.227	11.272	10.553	8.589
8.195	28.239	26.391	21-927	17.052	13.367	11.313	10.674	9.:26
9.609	29.075	27.155	22-475	17.382	13.526	11.375	10.767	9.455
9.016	29.877	27.911	23.938	17.720	13.7.01	11.454	10.758	9.376
9.485	36.734	28.755	23.711	18.125	13.920	11.565	10.836	10.361
9.893	31.380	29.420	24.293	18.483	14.118	11.673	10.916	10.773
19.280	31.931	30.017	24.863	18.852	14.326	11.791	11.007	11.184
13.677	32.384	30.534	25.425	19.233	14.542	11-920	11.108	11.596
11.145	32.788	31.029	26.036	19.691	14.806	12.081	11.237	12.083
11.551	33.031	31.358	26.514	20.094	15.043	12.230	11.359	12.563
11,963	33.186	31.602	26.941	20.501	15.290	12.387	11.489	12.727
12.384	33.263	31.765	27-311	22.908	15.549	12,555	11.629	13.362
12.899	33.273	31.861	27.663	21.376	15.866	12.763	11.864	13.885
17.336	33.228	31.875	27.895	21.763	16.150	12.953	11.966	14.348
13.798	33.146	31.839	28.061	22.129	16.447	13.155	12.139	14.827
14.360	33.012	31.749	28.175	22.519	16.804	13.407	12.356	15.409
14.863	32.875	31.639	28.209	22.813	17.118	13.636	12.555	15.929
15.397	32.724	31.567	28.194	23.063	17.435	13.878	12.767	16.472
15.934	32.572	31.360	28.139	23.265	17.749	14.133	12.993	17.238
16.600	32.411	31.187	28.635	23.436	18.103	14.441	13,272	17.727
17.197	32.295	31.048	27.922	23.528	18.388	14.714	13.524	18.346
17,824	32.204	30.930	27-793	23.57-2	18.651	14.993	13.787	18.994
18.479	32.137	30.836	27.657	23.574	18.882	15.272	14.058	19.572
19.273	32.091	31.762	27.508	23.533	19.104	15.588	14.375	20.494
19-983	32.071	30.7-23	27-397	23.470	19.252	15.847	14.646	21.238
20.726	32.068	39.704	27-308	23.388	19.360	16.087	14.910	21.999
21.506	32.074	33.700	27.242	23.294	19.431	16.305	15,163	22.806
22.455	32.093	30.712	27-195	23.186	19.468	16.520	15.431	23.788
23.236	32.115	39.729	27, 176	23.087	19-467	16.667	15.630	24.666

MACH NO = 15.00 CONE ANGLE = 15.00 ANGLE OF ATTACK = 3.0.

		P /	P FPEE-S	TREAM A	T PLANE	ANGLES		
L/RN	0.	33.	60.	90.	120.	153.	180.	S/RN
						_		
24.169	32.140	30.750	27.172	23.004	19.442	16.778	15.798	2 <b>5.</b> 564
25.078	32.168	33.775	27.179	22.937	19.400	16.856	15.932	26.505
26.178	72.201	30.805	27.195	22.879	19.336	16.906	16.042	27.644
27.147	32.230	30.834	27.215	22.848	1-9.275	16.918	16.101	28.546
23.143	32.255	33.861	27.235	22,829	19.214	16.998	16.129	29.677
29.163	32.275	36.885	27.257	22.822	1-9.155	16.881	16.132	38.734
30.386	32.294	30.909	27.284	22.824	19.095	16.834	16.159	32.000
31.466	32.306	30.924	27.306	22.832	19.052	16.785	16.073	33.118
32.580	32.314	30.934	27.325	22.843	19.619	16.732	16.026	34.271
33.731	32.320	30.941	27.345	22.856	18.994	16.679	15.972	35.463
₹5.127	32.325	30.947	27.352	22.872	18.974	16.518	15.915	36.908
36.375	32.327	39.949	27.371	22.887	18.966	16.571	15.848	38.25€
37.676	32.330	33.951	27.377	22.902	18.963	16.529	15.792	39.547
39.034	32.332	30.952	27.381	22.915	18.964	16.494	15.742	40.953
40.701	32.333	3-0.953	27.382	22.931	18.970	16.463	15.690	42.578
42.207	32.334	39.954	27.382	22.942	18.978	16.444	15.655	44.237
43.797	32.335	39.955	27.383	22.950	18.987	16.433	15.627	45.880
45.758	32.336	30.955	27.382	22.957	18.999	16.427	15.603	47.914
47.552	32.337	39.956	27.382	22.951	19.010	16.427	15.591	49.772
49.461	32.338	30.956	27.382	22.963	<b>1</b> 9.020	16.432	15.586	51.º748
51-499	32.339	39.957	27.382	22.964	19.030	16.441	15.585	5 <b>3.</b> 858
54.063	32.340	30.958	27.382	22.966	19.040	16.453	15.590	56.512
56.442	32.341	30.959	27.381	22.967	19.047	16.466	15.598	58.975
<b>59</b> •: <b>013</b>	32.342	30.960	27.381	22.967	19.053	16.480	15.609	61.637
61.832	32.344	30.961	27.381	22.967	19.058	16.493	15.622	64,524
65.372	32.346	39.963	27.380	22.966	19.062	16.59B	15.639	68.220
68.742	32.348	30.965	27.380	22.964	19.065	16.519	15.654	71.789
72.441	32.350	33.967	27.380	22.961	19.067	16.528	15.668	75.538
76.513	32.353	30.970	27.380	22.958	19.068	16.535	15.681	79.754
81.793	32.355	30.973	27.382	22.954	19.067	16.539	15.691	85.220
86.654	32.359	30.976	27-385	22.953	19.064	16.541	15.696	90.263
91.815	32.361	30.980	27.389	22.954	19.063	16.543	15.699	95.596
97.261	32,763	30.982	27.391	22.955	19.062	16.543	15.700	101.234
104.912	32.365	33.984	27.394	22.955	19.559	16.540	15.697	108.223
110.159	32.367	30.986	27.397	22.957	19.056	16.537		114.587
115.660	32.368	30.987	27.399	22.959	19.055	16.534		121.316
123.533	32.368	39.988	27.4.00	22.960	19.054	16.530		128-433
132.054	32.369	39.988	27.402	22.963	19.053	16.526		137254
139-813	32.369	30.989	27.403	22.964	19.052	16.523		145.287
148.019	32.370	30.989	27.403	22.966	19.053	16.520		153.782
156.696	32.370	30.989	27.404	22.967	19.053	16.518		162.765
167.452	32.373	38.990	27-404	22.968	19.054	16.516		173.901
177247	32.371	30.990	27.404.	22.969	19.055	16.515		184.341
187.606	32.371	30.990	27.405	22.970	19.056	16.514		194.765
200.446	32.371	30.990	27.405	22.979	19.057	16.513	15.658	268.159

MACH NO = 20.00 CONE ANGLE = 15.00 ANGLE OF ATTACK = 3.07

		p /	P FREE-S	TREAM AT	PLANE	ANGLES		
L/RN	Ü•	30.	60.	90•	120.	150.	180.	SZRN
.741	62.941	61.394	57.332	52.156	47.383	44.127	42.986	1.329
• 96 5	59.294	57.806	53.914	48.992	44.496	41.453	40.388	1.540
1.242	54.673	53.258	49.584	÷4•979	46.819	38.032	37.060	1.828
1.629	49.250	47.911	44.469	46.226	36.466	33.985	33.126	2.228
2.077	44.598	43.316	39.999	35.983	32.502	30.252	29.484	2.692
2.579	41.161	39.824	36.472	32.531	29.200	27.100	26.392	3.212
3.119	39.080	37.654	34.113	30.051	26.712	24.641	23.951	3.771
3,679	38.159	36.576	32.719	28.383	24.889	22.777	22.687	4.353
4.244	₹8.130	36.356	32.071	27.357	23.647	21.432	20.714	4.936
4.805	38.813	36.821	31.998	26.819	22.827	20.487	19.733	5.516
5.279	39.807	37.581	32.286	26.647	22.378	19.911	19.123	<b>6.</b> 306
5.818	41.243	38.791	32.924	26.708	22.075	19.438	18.605	6.565
6.343	42.778	40.147	33.779	26.976	21.957	19.134	18.248	7.109
6.851	44.338	41.537	34.743	27.395	21.976	18.959	18.017	7.635
7.344	45.957	42.958	35.748	27.910	22.099	18.883	17.883	8.144
7.820	47.665	44448	36.774	28.485	22.298	18.884	17.826	8.638
8.283	49.428	46.012	37.834	29.031	22.552	18.943	17.829	9.117
8.733	51.169	47.608	38.946	29.719	22.846	19.046	17.876	9.583
9.173	52.807	49.175	40.109	30.368	2317-1	19.184	17.958	10.339
9.606	54.277	50.650	41.307	31.043	23.519	19.351	18.070	10.487
9.974	55.373	51-803	42.342	31.647	23.834	19.514	18.186	10.868
13.401	56.441	52.988	43.531	32.386	24.220	19.725	18.342	11.309
13.828	57.278	53.982	44.668	33.161	24.626	19.957	18.519	11.751
11.258	57.888	54.774	45.726	33.967	25.055	20.208	18.717	12.196
11.692	58.284	55.354	46.678	34.798	25.510	20.479	18.935	12.547
12.135	58.491	55 <b>.7</b> 60	47.506	35.641	25.994	20.770	19.171	13.105
12.588	58.542	55.978	48.197	36.482	26.510	21.084	19.429	13.574
13.054	58.467	56.043	48.741	37.306	27.059	21.420	19.708	14. 157
13.537	58,293	55.984	49.134	38.094	27.643	21.784	20.009	14.556
14.038	58.036	55.824	49.379	38.826	28.257	22.179	20.337	15.374
14.483	57.764	55.619	49.477	39.392	28.804	22.542	20.641	15.535
15.023	57.411	55.316	49.478	39.968	29.459	22.998	21.025	16.194
15.586	57.053	54.969	49.374	40.439	3.0118	23.489	21.444	16.677
15.178	56.727	54.613	49.185	40.794	30.765	24.008	21.894	17282
16.780	56.455	54.283	48.927	41.033	31.384	24.554	22.380	17.913
17.419	56.243	54.004	48.619	41.160	31.961	25-124	22.900	18.575
18.086	56.095	53.790	48.292	41.184	32.475	25.705	23.447	19.266
13.776	56.009	53.645	47.983	41.121	32.909	26.279	24.007	19.986
19.492	55.971	53.559	47.716	40.987	33-259	26.834	24.575	20.721
20.239	55.969	53.523	47.506	40.799	33.523	27.360	25.139	21.495
20.909	55.98B	53.523	47.373	40.606	33.680	27.776	25.610	22.188
21.722	56.025	53.548	47.273	40.363	33.786	28.208	26.128	23.133
22.558	56.075	53.590	47.228	40.129	33.815	28.566	26.591	23.895
23.421	56.133	53.640	47.221	39.921	33.781	28.849	26.990	24.788
24.315	56.197	53.697	47.243	39.751	33.696	29.057	27.319	25.715

MACH NO = 20.00 CONE ANGLE = 15.00 ANGLE OF ATTACK = 3.0P / P FREE-STREAM AT PLANE ANGLES L/PN 0. 30. 90. 120. SZRN 60. 150. 18ú. 25.247 56.264 53.759 47.279 39.624 33.572 29.192 27.574 26.579 26.204 56.327 53.823 47.324 39.549 33.424 29.258 27.751 27.673 27,183 56.385 53,888 47.375 39.494 33.268 29.265 27.855 28.584 28.189 56.429 39.478 53.942 47.426 33.116 27.894 29.222 29.725 23.218 56.464 53.988 47.482 39.484 32.978 29.141 27.877 36.791 56.487 30.123 54.019 47.528 39.500 32.877 29.049 27.826 31.724 31.198 56.504 54.042 47.576 39.526 32.782 28.924 27.731 32.345 32.308 56.515 33,989 54.058 47.623 39.558 32.711 28.789 27.609 56.522 39.591 33.453 54.068 47.659 32.663 28.653 27.470 35.175 34.638 56.524 54.073 47.682 39.626 32.635 28.523 27.321 36.432 56.524 39.663 35.868 54.069 47.703 32.623 28.406 27.172 37.675 56.526 47.709 39.698 37.145 54.069 32.624 28.307 27.031 38,997 38.675 56.526 47.709 28.227 54.067 39.731 32.634 26.906 40.374 56.525 54.164 47.705 39.863 39.761 32.649 28.160 26.800 41.311 41.314 56.526 54.063 47.702 39.784 32.669 28.128 26.717 43.313 42.613 56.528 54.963 47.697 39.797 32.689 28.197 26.663 44.558 44.198 56.531 54.364 47.691 39.808 32.713 28.097 26.620 46.299 47.689 39.812 32.738 28.099 45.866 56.535 54.665 26.596 48. 26 47.627 56.538 54.069 47.688 39.811 32.763 28.111 26.588 49.849 49.432 56.542 54.074 47.687 39.808 32.785 28.130 26.593 51.779 28.155 51.473 56.545 54.077 47.687 39.806 32.804 26.606 53.830 53.586 56.547 54.081 47.699 39.864 32.818 28.183 56. 18 26.626 56.5.9 55.850 54.084 4-7.693 39.805 32.826 28.214 26.650 58.352 53.287 56.530 54.185 47.695 39.807 32.830 28.247 26.678 60.384 50.921 56.552 54,886 47.697 39.816 32.833 28.278 26.709 63.512 63.361 56.553 54.087 47.699 32.833 39.811 28.303 26.738 66.138 56.556 56.458 54.689 47.699 39.812 32.834 28.328 26.772 69.336 56.558 69.840 54.091 47.697 39.811 32.837 28.346 26.805 72-345 73.578 56.561 54.093 47.696 39.809 32.841 28.357 26.834 76.716 77.720 56.565 54.096 47.695 39.894 32.845 28.362 26.857 81.303 56.559 82.327 54.100 47.695 39.797 32.845 28.362 26.871 85.773 87.473 56.573 54.105 47.696 39.798 32.840 28.358 26.877 91.101 93.242 56.577 47.699 39.783 97.373 54.110 32.830 28.350 26.876 56.581 99.526 54.115 47.705 39.780 28.337 32.819 26.867 103.579 106.221 56.584 54.120 47.712 39.785 32.815 28.322 26.854 110.509 112.376 56.587 54.123 47.717 39.789 32.814 28.309 26.839 116.839 56.589 54.125 47.721 39.792 119.835 32.811 28.291 26.815 124.604 127.856 56.590 54.127 47.725 39.797 32.806 28.273 26.788 132.938 56.592 136.402 54.128 47.727 39.802 32.895 28.255 26.759 141.755 145.506 56.593 54.129 47.729 39.806 32.808 28.241 26.730 151.180 155.205 56.593 54.129 47.730 39.810 32.810 28.229 26.701 161.222 56.594 165.538 54.136 47.731 39.812 32.813 28.221 26.674 171.919 56.594 176.547 54.130 47.731 39.814 32.816 28.216 26.651 183.317 183.276 56.595 47.732 54.131 39.815 32.818 28.214 26.631 195.459 200.772 56.595 47.732 54.131 39.816 32.821 28.214 26.616 208.396

MACH NO = 25.00 GONE ANGLE = 15.00 ANGLE OF ATTACK = 3.03

		P /	P FREE-S	TREAM A	T PLANE	ANGLES		
L/RN	0.	30 •	60.	90.	120.	150.	180.	S/RN
.741	97.884	95.474	89.143	31.074	73.635	68.567	66.785	1.309
1.191	86.111	83.890	78.110	70.854	64.289	59.886	58.349	1.774
1.747	74.127	72.068	66.794	69.327	54.630	50.895	49.604	2.350
2.566	63.862	61.795	56.615	50.480	45.278	41.982	40.867	3.198
3.399	59.463	57.135	51.435	44.925	39.628	36.393	35.324	4.060
4.247	58.820	56.047	49.404	42.074	36.317	32.898	31.787	4.939
5.148	60.920	57.525	49.507	40.932	34.436	30.685	29.484	5.872
5.936	64.134	60.229	50.908	41.005	33.686	29.556	28.252	6.687
5.680	67.584	63.288	52.922	41.729	33.518	28.967	27.546	7.457
7.444	71.521	66.729	55.311	42.925	33.756	28.722	27.165	8.248 8.936
8.193	75.392	70.117 73.964	57.572	44.181 45.621	34.214	28.741 28.937	27.056 27.115	9.634
9.753 9.379	75.605 93.088	77.351	60.198 62.753	47.031	34.867 35.547	29.227	27.284	10.251
9.379	85.976	86.357	65.358	48.462	36.278	29.592	27.535	10.849
19.572	88.350	8:3: 635	68.108	50.402	37.129	30.054	27.878	11.487
11.131	89.819	84.881	70.416	51.825	37.963	30.523	28.243	12.765
11.689	90.675	36.146	72.425	53.539	38.859	31.034	28.649	12.643
12.303	91.040	86-922	74.21-0	55.427	39.921	31.642	29.139	13.279
12.876	90,986	87.173	75.439	57.115	40.975	32.252	29.632	13.372
13.516	98.616	87.066	7:6.332	58.842	42.210	32.985	30.226	14.535
14.121	3.963	86.791	76.764	60.260	43.409	33.727	30.829	15,161
14.747	89.381	86.143	76.876	61.470	44.652	34.542	31.498	15.889
15.455	88.61-2	85.397	76.700	52.514	46.023	35.515	32.311	16.542
16.130	87.987	84.695	76.321	63.197	47.251	36.478	33.135	17.241
15.831	87.499	84.077		63.619	48.407	37.496	34.031	17,967
17.626	87.135	83.563	75.111	63.803	49.537	38.646	35.081	18.789
18.382	86.949	83251	74.497	63.755	50.415	39.709	36.093	19.573
19.239	86.889	83.071	73.926	63.511	51.177	40.837	37.223	20.459
20.052	86.903	83.627	73.538	63.156	51.684	41.805	38.251	21.351
21.893	96.974	83.063	73.286	62.725	52.013	42.677	39.238	22.172
21.842	87083	83.153	73.151	52.233	52.185	43.489	40.229	23.154
22.741	37.201	83.259	73.131	61.818	52.192	44.089	41.029	24. 85
23.569	87.328	83.377		51.478	52.082	44.545	41.702	25.~45
24.714	87.470	83.514	73.273	51.211	51.860	44.879	42.277	26.128
25.725	87.590							
26.727	87.690	83.761	73.490	6c.991	51.301	45.090	42.894	28.212
27.880	87.773	83.868	73.615	60.987	50.987	45.020	43.006	29.405
28.973	87.824	83.941	73.728	61.030	50.733	44.867	42.987	30.537
30.207	87.858	83.992	73.844	51.106	5.0 - 512	44.630	42.853	31.814
31-377	87.873	84.017	73.935	61-189	50.368	44.372	42.647	33.126
32.587	87.877	84.027	74.005	61.276	50.277	44.102	42.383	34.278
33.954	87-873	84.025	74.054	51.373	50.233	43.818	42.059	35.693
35.252	97.864	84.016	74.078	61.459	50.232	43.588	41.755	37.337
36.595	87.853	84.005	74.084	61.541	50.259	43.398	41.467	38.427
38.112	87.838	83.999	74.078	61.619	50.310	43.242	41.192	39.999

MAC	H NO = 2	5.00 0	ONE ANGL	E = 15.0	0 ANGL	E OF ATT	ACK =	<b>3 • 0</b> 0
	•				D4 4415	ANCLES		
			FREE-ST			ANGLES	180.	SZRN
L/RN	0 •	30•	60•	90•	120.	150.	100.	Cir (Cir
			T. 061	64 676	50.367	43.146	40.957	41.491
39.554	87.824	83.974	74.064	61.676 61.721	50.435	43.086	40.818	43.179
41.184	97.812	83.958	74.046 74.028	61.746	50.501	43.072	40.714	44.782
42.733	87.803	83.945 83.936	74.020	61.756	50.566	43.082	40.655	46.441
44.335	87.798	83.930	73.991	61.756	50.633	43.116	40.634	48.316
46.146	87.794	83.927	73.975	61.748	50.690	43,162	40.647	50.798
47.867	87.793 87.792	83.926	73.962	61.736	50.739	43.216	40.682	51.941
49.648 51.662	87.792	83.927	73.951	51.720	50.782	43.282	40.741	54.926
53.575	87.793	83.928	73.945	61.706	50.811	43.344	40.836	56.006
55.737	37.795	83.929	73.942	61.690	50.831	43.412	40.886	58.245
57.792	87.796	83.938	73.941	61.676	58.842	43.472	40.964	60.372
59.918	87.798	83.931	73.941	61.663	50.846	43.528	41.044	62.573
62.321	87.801	83.933	73.943	61.652	50.846	43.580	41.129	65.061
64.605	87.803	83.934	73.944	61.643	50.843	43.621	41.202	67.426 69.872
65.968	87.806	83.936	73.944	51-636	50.838	43.653	41.270	72.638
59.639	87.809	83.938	73.945	61.632	50.831	43.680	41.335	75.266
72.178	87.811	83.940	73.946	61.629	50.825	43.697 43.708	41.427	77.985
74.804	87.814	83.942	73.946	51.627	50.818	43.716	41.463	81.359
77.774	87.817	83.944	73.947	51.626	50.811 50.806	43.719	41.489	83.980
80.595	87.819	83:-947	73.948	61.625	50.801	43.719	41.510	87.283
83.786	87.822	83-950	73.950	61.624 61.623	50.798	43.717	41.525	90.421
86.817	87.823	83.952	73.951 73.953	61.623	50.795	43.715	41.535	93.668
89.953	37.825	83.955	73.955	61.623	50.794	43.711	41.543	97.340
93.500	87.826	83.956 83.958	73.957	61.622	50.793	43.707	41.548	100.828
96.869	87.826	83.959	73.959	61.623	50.793	43.703	41.552	104.438
100.356	87.826 87.826	83.959	73.962	61.623	50.793	43.700	41.555	108.520
104.299	87.826	83.959	73.963	61.624	50.793	43.697	41.557	112.399
112.282	87.825	83.959	73.965	51.625	50.793	43.695	41.559	116.784
116.307	87.824	83.958	73.966	61.626	5.0:-7:94	43.694	41.562	120.951
120.472	87.823	83.958		61.627	50.795	43.693	41.565	125.264
125.183	87.823		73.967	61.628	50.796	43.692		130.140
129.658	87.822	83.956	73.967	61.629	50.798	43.691	41.5/3	134.773
134.289	87.821	83.955	73.966	61.630	50.799	43.691		139.568 144.990
139.527	87.821	83.954		61.630	50.801	43.690	41.581 41.585	
144.503	87.821	83.953		61.631	50.803	43.690		
150.139	87.821	83.953		51.631	50.806	43.689		_
155.476	87.821	83.952		61.630	50 • 80 8	43.689 43.689		167.231
161.009	87.821			61.629	50.810 50.812	43.689		
167.266				61.628	50.814	43.689		179.862
173.210				51.627 61.626	50.816	43.689		186.231
				61.624		43.689		193.433
186.319						43.689	41.60	200.276
192.929				61.621	50.821	43.689		3 208.014
200.403	87.824	0 3.0-722	104373	021001				

MACH NO = 30.00 CONE ANGLE = 15.00 ANGLE OF ATTACK = 3.00

P / P FREE-STREAM AT PLANE ANGLES	
	30. S/RN-
.741 140.597 137.127 128.025 116.424 105.727 98.432 95.8	1.309
1.190 123.569 120.377 112.073 101.650 92.221 85.896 83.6	390 1.77-3
1.807 104.724 101.783 94.257 85.057 76.979 71.695 69.8	373 2.413
2.561 91.405 88.443 81.023 72.234 64.784 60.065 58.4	68 3.193
3,468 84.691 81.310 73.053 63.659 56.046 51.412 49.8	383 4.132
4.312 34.966 80.026 70.373 59.767 51.473 46.563 44.9	<b>5.</b> 306
5.206 87.263 82.321 70.661 58.239 48.871 43.480 41.7	757 5.931
6.053 92.338 86.628 72.967 58.452 47.782 41.795 39.9	<b>6.808</b>
6.783 97.260 90.986 75.883 59.560 47.609 41.014 38.9	
7.532 102.965 95.938 79.270 61.285 47.981 40.696 38.4	<b>449 8.</b> 339
8.177 108.585 100.855 82.500 63.060 48.639 40.732 38.3	
8.843 114.640 106.414 86.287 65.087 49.557 41.009 38.3	
9.479 120.011 111.687 90.318 57.223 50.595 41.454 38.6	
10.043 124.014 115.909 94.070 69.320 51.620 41.965 38.9	
10.645 127.262 119.634 98.003 71.778 52.813 42.606 39.4	
11.191 129.238 122.173 101.285 74.166 53.989 43.256 39.9	
11.787 130.424 124.008 104.366 76.865 55.381 44.032 40.5	
12.339 130.799 124.918 106.650 79.357 56.772 44.809 41.2	
12.952 130.629 125.223 108.508 82.005 58.423 45.743 41.9	
13.581 130.000 124.976 109.703 84.475 60.207 46.782 42.7	
14.175 129.121 124.371 110.255 86.496 61.941 47.840 43.6	
14.847 127.979 123.399 110.347 88.358 63.906 49.119 44.6	-
15.486 126.934 122.347 110.044 39.699 65.726 50.407 45.7	
16.210 125.956 121.213 109.370 90.734 67.663 51.926 47.6	
16.965 125.225 120.258 108.440 91.326 69.469 53.542 48.4	-
17.683 124.785 119.610 107.486 91.509 70.947 55.077 49.8 18.496 124.536 119.160 106.495 91.371 72.309 56.761 51.4	
18.496 124.536 119.160 106.495 91.371 72.309 56.761 51.4 19.268 124.479 118.961 105.744 90.990 73.296 58.262 52.9	and the same of th
20.141 124.541 118.926 105.152 90.370 74.077 59.791 54.6	
20.968 124.665 119.005 104.819 89.694 74.525 61.046 56.0	
21.900 124.840 119.157 104.659 88.945 74.744 62.216 57.4	
22.864 125.043 119.342 104.663 88.279 74.716 63.149 58.7	
23.777 125.242 119.528 104.759 87.795 74.512 63.788 59.7	
24.804 125.455 119.742 104.918 87.427 74.142 64.252 60.5	
25.777 125.628 119.935 105.085 87.229 73.717 64.474 61.0	
26.872 125.780 120.123 105.278 87.147 73.219 64.516 61.4	
28.006 125.889 120.271 105.473 87.169 72.745 64.375 61.5	
29.080 125.956 120.367 105.646 87.252 72.369 64.116 61.	_
30.291 125.996 120.431 105.818 87.379 72.050 63.731 61.2	
31.439 125.012 120.460 105.948 87.512 71.845 63.323 60.9	
32.735 126.012 120.468 106.050 87.663 71.715 62.866 60.4	
33.965 126.003 120.460 106.108 87.802 71.668 62.469 60.0	
35.353 125.985 120.443 106.136 87.948 71.680 62.091 59.4	
36.793 125.962 120.420 106.138 88.082 71.737 61.789 59.0	
38.159 125.939 120.396 106.123 88.186 71.816 61.584 58.6	

MACH NO = 30.00 CONE ANGLE = 15.00 ANGLE OF ATTACK = 3.00

		P /	P FREE-S	TREAM A	T PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150.	180.	S/RN
	125.917			88.274	71.917	61.438	58.310	41.645
-	125.901	120.346		88.329	72.018	61.368	58.085	43.162
	125.889	120.325		88.362	72.130	61.349	57.922	44.876
44.541		120.312		88.372	72.241	61.377	57.837	46.654
	125.878	120.306		88.366	72.336	61.433	57.818	48.342
	125.876	120.303		88.348	72,429	61.515	57.847	5 (.248
	125.876	120.304		88.327	72.500	61.604	57.909	52.358
	125.878	120.306		88.301	72.560	61.709	58.004	54.103
		120.308		88.278	72.598	61.808	58.109	56.044
	125.882			88.252	72.625	61.914	58.235	58.237
		120.312		88.229	72.638	62.014	58.369	60.511
	125.888			88.210	72.641	62.096	58.491	62.671
_	125.891		-	88.193	72.638	62.173	58.621	65.110
	125.894			88.181	72.630	62.231	58.731	67.426
	125.898			88.172	72.620	62.280	58.839	70.542
69.753		120.323		88.167	72.608	62.316	58.932	72.756
	125.906			88.164	72.597	62.338	59.003	75.332
	125.910			88.163	72.585	62.352	59.066	78.243
77.7.22	125.914			88.162	72.575	62.359	59.112	81.006
80.738		120.336		88.161	72.566	62.361	59.149	84.128
83.601		120.339		88.160	72.550	62.359	59.174	87=-: 92
86.835		120.343		88.160	72.555	62.354	59.194	90.440
90.191	125.925	120.347		88.159	72.552	62.347	59.207	93.914
93.376	-	120.349		38.158	72.551	62.341	59.215	97-211
96.975	125.927	120.352		88.158	72.551	62.333	59.220	100.938
100.392		120.353		88.158	72.551	62.327	59.222	104.475
104.253	125.927	120.354		88.158	72.551	62.322		108-472
108.258	125.926	120.354		88.159	72.552	62.318	59.226	112.618
112.060		_	105.947	88.160	72.552	62.316	59.229	116.555
116.356		120.352		88.161	72.553	62.314	59.233	121-003
120.436		120.351		88.163	72.555	62.314	59.237	125.226
125.045		120.350		88.164	72.556	62.313	59.243	129.997
129,421		120.348		88,166	72.558	62.313	59.250	134.528
134.365	125.920	120.347		88.167	72.561	62.313	59.257	139.647
139.494		120.345		88.168	72.563	62.312	59.263	144.957
	125.919			88.169	72.566	62.312		149.999
	125.919			88.169	72.569	62.312		155.695
	125.919			88.168	72.572	62.312		161.104
	125.919			88.167	72.576	62.311		167215
	125.920			88.156	72.579	62.311		173.555
	125.921			88.164	72.582	62,311		179.574
	125.922			88.162	72.585	62.311	59.296	
	125.922			88.160	72.587	62.311		192-831
	125.923			38.157	72.589	62.312		200:127
200.095	125.924	120.347	195.938	88.155	72.591	62.312	59.304	20.7-696

H	ACH NO =	3.50	CONE	ANGL	= 2	0.00	ANGLE	OF	ATTA	CK =	3.03
				o-	0 T 4 M	4 T	PLANE	ANGI	E 0		
				EE-ST			120.	150		180.	S/RN
L/RN	I 0•	30 ∙		60•	90	•	120.	10	•	1000	<b>0</b> ,
	7 640	3.353	٧.	179	2.95	2	2.739	2.5	91	2.539	1.222
- 658		3.385		201	2.96		2.742	2.5		2.534	1.32
.751	-	3.429		243	3.00		2.779	2.6		2.571	1.426
•850 •992		3.436		245	3.00		2.779	2.6		2.572	1.577
1.144		3.427		235	2.99		2.766	2.6	12	2.558	
1.266		3.413		221	2.97		2.752	2.6		2.546	
1.437		3.393		200	2.95		2.732	2.5		2.527	
1.61		3.376		181	2.93	34	2.710	2.5		2.507	
1.80		3.364		167	2.91	18	2.692	2.5		2.489	
1.95		3.360		160	2.90	9	2.682		31	2.478	
2.16		3.328		129	2.88		2.656		07	2.456	2.825
2.38		3.330		121	2.86		2.637	2.4		2.438	
2.61		3.360		146	2.8		2.644		88	2.435	
2.79		3.373		158	2.8		2.654		94	2.439	
3.04		3.398		174	2.9		2.662		02		
3.29		3.430		201	2.9		2.670	2.5	09 20	2.453 2.464	• .
3.56		3.462		229	2.9		2.687	2.5		2.474	
3.76		3.487		249	2.9		2.70i 2.719		31 47	2.489	
4.04		3.522		280	2.9				63	2.504	
4.33		3.556		310		07	2.760		80	2.519	
4.63		3.590		340	3.0	33 51		2.5		2.533	
4.86		3.615		362	3.0		2.797			2.552	
5.17				.391 .419			2.817		34	2.571	
5.50		3.674 3.700		445			2.838	2.6		2.589	
5.84		3.717		.463	3.1		2.854	2.6		2.602	7.322
6.10 6.47	-	3.737		.484	3.1		2.874		84	2.620	
6.85	-	3.754		.504	3.1		2,892	2.7	02	2.638	
7.25		3.769	-	.520	3.2		2.911		119	2.654	
7.56	-			-531	3.2		2.924		31	2.666	
7.99				.544	3.2	30	2.940		747	2.682	9.034
8.45				.556	3.2		2.955		763	2.697	
8.94		3.809	3	•566	. 3.2		2.969		777	2.712	10.338
9.32		3.814		.572		63			787		2 10-445
9.86		3.82	) 3	.580	3.2		2.96		300	2.734	
10.43		3.82	5 3	•586	3.2		2.999		311	2.746	
11.04	4 3.917	3.82		.591	3.2		3.008		321	2.757	
11.52				• 594	3.2		3.014		828	2.76	
12.21				.598	3.2		3.020		836 843	2.78	
12.94				.600	3.3		3.026			2.78	
13.73				.602	3.3		3.031		848 852	2.79	
1.4.36				603	3.3		3.034 3.038		856	2.79	
15.26				604	3.3		3.040		860	2.79	
16.2				605		311	3.043		863	2.80	
17.20	51 3.925	3.83	r 5	.606	3.6	312	0 + 0 7 0				

MA	/CH NO =	3.50	CONE	ANGL	E = 2	0.00	ANGLE	OF	ATTA	CK =	3.0:
		D /	2 22	r:c 01	PO = 4'14	4= -					
L/QN	0.				TREAM			ANGL			
E / KIN	U •	30.	,	60.	90	• 1	20.	150	•	180.	S/RN
18.088	3.925	3.837	3.0	606	3.31	3 3.	044	2.86	4	2.803	19.770
19.244	3.926	3.838		607	3.31			2.86		2.805	
20.466	3.926	3.838		607	3.31			2.86		2.807	
21.757	3.927	3.839		608	3.31			2.86		2.808	
22.773	3.927	3.839		608	3.31			2.67		2.809	
24.195	3.928	3.840		608	3.31			2.87		2.810	
25.698	3.928	3.840	3.6	609	3.31			2.87		2.811	
27.287	3.929	3.849	3.0	609	3.31			2.87		2.811	
28.538	3.929	3.841	3.6	609	3.31			2.87		2.812	
39.288	3.929	3.841	3.0	609	3.31	7 3.		2.87		2.812	
32.139	3.930	3,842	3.0	610	3.31	7 3.	051	2.87	4	2.813	34.723
34.095	3.930	3.842		510	3.31		052	2.87	4	2.813	<b>36.</b> 805
35.635	3.931	3.842		510	3.31			2.87		2.813	38.444
37.791	3.931	3.843		51 <b>0</b>	3.31			2.87		2.813	40.738
49.071	3.931	3.843		510	3.31			2.87		2.814	
42.481	3.931	3.843		511	3.31			2.87		2.814	45.728
44.378	3.932	3.843		511	3.31			2.87		2.814	47.748
47.034	3.932	3.843		511	3.31			2.87		2.814	50.574
49.843	3.932	3.844		11	3.31			2.87		2.814	.53.563
52.812	3.932	3.844		511	3.31			2.87		2.814	56.723
55.150	3.932	3.844		511	3.31			2.87		2.814	
58.423 61.884	3.933	3.844		512	3.31			2.87		2.814	
65.543	3.933 3.933	3.844		512	3.31			2.87		2.814	
68.425	3.933	3.844 3.844		512	3.319			2.87		2.814	
72.459	3.933	3.845		512 512	3.319 3.319			2.87		2.814	
76.724	3.933	3.845		512				2.87 2.87		2.814	
81.234	3.933	3.845		512				2.87		2.814	
84.785	3.933	3.845		512				2.87		2.814	
89.757	3.933	3.845		512	3.31			2.87		2.814	
95.014	3.933	3.845		12	3.319			2.87			101.633
100.572	3.933	3.845		512	3.319			2.87			107.548
104.949	3.933	3.845		12	3.319			2.87			112.206
111.077	3.933	3.845		512	3.319			2.87			118.727
117.556	3.933	3.845	3.6		3.319			2.87			125.622
124.407	3.933	3.845	3.6		3.319			2.87			132.913
129.802	3.933	3.845	3.6		3.319			2.87			138.654
137.355	3.933	3.845	3.6		3.319			2.87			146.692
145.341	3.933	3.845	3.6		3.319			2.87			155.190
153.785	3.933	3.845	3.€		3.319			2.87			164.176
161.434	3.933	3.845	3.6		3.319	3.		2.87			171.252
169.744	3.933	3.845	3.6		3.319	3.		2.87			181.159
179.587	3.933	3.845	3.6		3.319	3.		2.87			191.634
189.995	3.933	3.845	3.6		3.319			2.87		2.814	202.710
200.999	3.933	3.845	3.6	13	3.319	3.	053	2.87	5	2.814	214.421

MAC	CH NO =	5.00	CONE ANGL	E = 20.0	0 ANGL	E OF ATT	ACK =	3.01
			P FREE-ST			ANGLES		
L/RN	0 •	30.	60.	90.	120.	150.	180.	SZRN
.658	6.117	5.989	5.651	5.215	4.807	4.526	4.427	1.222
.770	6.110	5.978	5.629	5.181	4.764	4.478	4.377	1.341
.893	6.050	5.917	5.569	5.123	4.713	4.432	4.333	1.472
1.027	5.963	5.828	5.477	5.032	4.623	4.346	4.248	1.615
1.209	5.838	5.704	5.353	4.911	4.507	4.234	4.138	1.808
1.366	5.740	5.605	5.253	4.811	4.411	4.143	4.049	1.975
1.575	5.637	5.499	5.143	4.698	4.299	4.033	3.940	2.198
1.751	5.575	5-434	5.072	4,623	4.221	3.955	3.863	2.385
1.981	5.527	5.382	5.010	4.550	4.142	3.874	3.781	2.630
2.171	5.474	5.328	4.950	4.485	4.074	3.806	3.714	
2.420	5.492	5.332	4.928	4.442	4.018	3.742	3.648	
2.624	5.527	5.365	4.950	4.446	4.008	3.722	3.624	
2.886	5.583	5.411	4.975	4.452	4.001	3.710	3.610	<b>3.</b> 593
3.100	5.649	5.470	5.015	4.468	3.998	3.699	3.599	
3.370	5.739	5.552	5.076	4.507	4.014	3.698	3.593	4.108
3.589	5.820	5.626	5.132	4.542	4.036	3.710	3.599	
3.867	5.926	5.725	5.211	4.594	4.067	3.731	3.617	4.637
4.092	6.013	5.806	5.277	4.643	4.097	3.751	3.634	4.876
4.376	6.119	5.908	5.363	4.705	4.143	3.781	3.660	5.179
4.607	6.198	5.986	5.433	4.758	4.180	3.812	3.686	5.424
4.900	6.289	6.077	5.518	4.828	4.228	3.850	3.723	5.736
5.138	6.354	6.143	5.583	4.883	4.271	3.881	3.752	5.989
5.441	6,426	6.216	5.659	4.950	4.326	3.923	3.789	
5.689	6.478	6.269	5.714	5.004	4.369	3.960	3.822	6.575
6.005	6.537	6.328	5.777	5.067	4.423	4.007	3.866	6.912
6.265	6.579	6.372	5.822	5.115	4.467	4.043	3.901	7.189
6.600	6.627	6.420	5874	5-170	4.521	4.090	3.944	7.545
6.876	6.659	6.455	5.911	5.211	4.561	4.128	3.979	
7.233	6.693	6.492	5-954	5.257	4.610	4.175	4.026	8.219
7.530	6.714	6.516	5.984	5.292	4.647	4.211	4.062	
7.916	6.734	6.540	6.017	5.331	4.690	4.255	4.104	
8.322	6.748	6.557		5.366	4.730	4.298	4.147	9.377 9.739
8.662	6.756	6.567	-	5.391	4.760	4.329	4.130	
3.109	6.761	6.575	6.078	5.419	4.793	4.366	4.218	10.215 10.616
9.486	6.763	6.579	-	5.438	4.817	4.394 4.426	4•:246- 4•:280-	11.147
9.984	6.764	6.581	6.095	5•457 5•469	4.845		-	11.597
19.407	6.764	6.581	6.099		4.865	4.449	4.306	
10.969	6.762	6.581	6.102 6.102	5.480 5.486	4.886 4.901	4.476 4.495	4.333	12.194 12.704
11.447	6.761	5.580 6.578	-	5.486 5.491	4.915	4.516	4.377	13.384
	6.760	6.578 6.577	6.102 6.101	5.493	4.924	4.530	4.392	13.966
12.634 13.367	6.758 6.756	6.576	6.100	5.493 5.494	4.932	4.545	4.410	14.747
13.998	6.755	6.574		5.494	4.935	4.554	4.421	15.418
14.846	6.754	6.573		5.494	4.938	4.562	4.432	16.323
15.577	6.753	6.572	6.097	5.494	4.940	4.567	4.438	17. 98
					· · <del>-</del>			

MA	CH NO =	5.00	CONE	ANGLE	= 20	• 0 0	ANGLE	OF	ATTA	CK =	3.00
		D /	O FD	EE-STR	E A M	AT	PLANE	ANGL	F C		
L/RN	0.	30.		60.	90.	~ 1	120.	150		180.	S/RN
LIKN	0.	30.		00 •	<b>50 •</b>		120.	190	•	100.	37 1(1)
16.563	6.753	6.572	6.	096	5.493	; ,	4.940	4.56	9	4.443	18.147
17.414	6.753	6.572	6.	095	5.492		4.940	4.57	1	4.445	19.053
18.563	6.754	6.572	6.	095	5.492	<u> </u>	4.940	4.57	1	4.446	20.276
19.556	6.755	6.573	6.	095	5.491		4.940	4.57	1	4.446	21.333
20.895	6.756	6.574	6.	095	5.491		4.940	4.57	71	4.446	22.758
22.031	6.757	6.575	6.	096	5.491		4.940	4.57	1	4.446	23.966
23.528	6.759	6.577	6.	097	5.492		4.948	4.57	11	4.445	<b>25.</b> 560
24.792	6.761	6.578	6.	098	5.492		4.940	4.57	71	4.445	26.905
26.460	6.763	6.580	6.	099	5.493	;	4.941	4.57	71	4.445	28.679
27.867	6.764	6.581	6.	100	5.494		4.941	4.57	71	4.445	36.177
29.724	6.765	6.582	6.	102	5.494	•	4.942	4.57	71	4,444	32.153
31.291	6.767	6.583	6.	102	5,495	;	4.942	4.57	71	4.444	33.821
33.359	6.768	6.584	6.	103	5.496	)	4.943	4.57	72.	4.444	36.022
35.105	6.769	6.585	6.	104	5.496	)	4.943	4.57		4.445	37.880
37.409	6.770	6.586	6.	105	5.497	•	4.944	4.57	-	4.445	40.332
39.856	6.779	6.587	6.	106	5.497		4.944	4.57		4.445	42.935
41.921	6,771	6.588	6.	106	5.498		4.945	4.57		4.446	45.133
44.647	6.771	6.588		1-97	5.498		4.945	4.57		4.446	48.334
46.950	6,772	6.589		107	5.498		4.945	4.57		4.446	50.484
49.987	6.772	6.589		107	5.499		4.945	4.5		4.447	53.717
52.553	6.773	6.589		108	5.499		4.946	4.5		4.447	56.447
55 <b>.</b> -939	6.773	6.590		108	5.499		4.946	4.5		4.447	60.050
58.798	6.773	6.590		108	5.499		4.946	4.5		4.448	63.193
62.571	6.773	6.590		109	5.499		4.946	4.5		4.448	67.109
65.758	6.773	6.590		109	5.500		4.946	4.5		4.448	70.500
69.964	6,774	6.590		109	5.500		4.946	4.5		4.448	74.976
73.516	6.774	6.590		109	5.500		4.946	4.5		4.448	78.756
78.204	6.774	6.591			5.500		4.946	4.5		4.448	
82.163	6.774	6.591		109	5.500		4.946	4.5		4.448	
87388	6.774	6.591		110	5.500		4.946	4.5		4.448	
91.801	6.774	6.591		110	5.501		4.946	4.5		4.448	98.215
97.626	6.774	6.591		110	5.501		4.946	4.5		4.448	104.413
102.544	6.774			110	5.501		4.946	4.5		4.448	
109.036	6.774	6.591		1-10	5.501		4.947	4.5			116.556
114.519	6.774	6.591		110	5.501		4.947	4.5			122.390
121.755	6.774	6.591		110	5.501	_	4.947	4.5			130.091 136.594
127.866	6.774	6.591		.110	5.501		4.947	4.5			
135.932	6.774	6.591		110	5.501		4.947	4.5			145.177 152.426
142.744	6.774	6.591		110-	5.50		4.947 4.947	4.5			161.993
151.734	6.774	6.591		110	5.501 5.501		4.947	4.5			170.073
159.327	6.774	6.591 6.591		110	5.501		4.947	4.5			180.737
163.347	6.774	6.591		110	5.50		4.947	4.5			189.744
177.811	6.774	6.591		110	5.501		4.947	4.5			201.630
188.980 200.844	6.774 6.774	6.591		110	5.50		4.947	4.5			214.255
CON . O4.4	0 a / I - **	0.027	0	TIU	J. JU.	•	70 771	7.7	. •	****	

MACH NO = 10.00 CONE ANGLE = 20.00 ANGLE OF ATTACK = 3.00

		P /	P FREE-	STREAM	AT PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150.	180.	S/RN
	•		-					
.658	21.791	21.302	20.010	18.355	16.818	15.764	15.392	1.222
.814	21.221	20.729	19.438			15.237	14.873	1.388
• 96 2	20.527	20.036	18.751	17.127		14.642	14.291	1.545
1.159	19.654	19.167	17.902			13.909	13.571	1.754
1.413	18.710	18.221	16.960	15.396		13.071	12.748	2.326
1.649	18.068	17.569	16.289			12.421	12.106	2.276
1.897	17.616	17.698	15.778	14.175	12.776	11.867	11.555	2.540
2.195	17.254	16.705	15.312	13.650	12.227	11.312	11.002	2.857
2.456	17.279	16.676	15.171	13.399	11.906	10.963	10.644	3.135
2.720	17.423	16.773	15.159	13.284	11.713	10.728	10.398	3.416
2.983	17.732	17.024	15.270	13.247	11.579	10.542	10.198	3.596
3.287	18.226	17.446	15.521	13.325	11.532	10.424	10.055	4.020
3.545	18.732	17.897	15.823	13.458		10.384	10.000	4.294
3.799	19.264	18.387	16.181	13.651	11.608	10.375	9.973	4.565
4.092	19.859	18.957	16.641	13.927	11.735	10.413	9.982	4.876
4.339	20.327	19.414	17.043			10.479	10.025	5.138
4.583	20.764	19.838	17.432	14.486	12.043	10.568	10.090	5.398
4.824	21.188	20.241	17.798	14.783	12.231	10.681	10.175	5.656
5.104	21.675	20.703	18.202	15.126	12.465	10.835	10.304	5.953
5.343	22.075	21.091	18.538			10.980	10.427	6.207
5.581	22.443	21.461	18.870	15.687		11.135	10.558	6.461
5.860	22.818	21.854	19.252	15.999		11.331	10.729	6.757
6.10C	23.084	22.146	19.567			11.504	10.885	7.313
6.344	23.297	22.390	19.863	16.526		11.681	11.044	7.272
6.632	23.483	22.614	26.171	16.832		11.895	11.239	7.580
6.885	23.591	22.756	20.397			12.080	11.413	7.849
7.144	23.657	22.855	20.585			12.265	11.588	8.124
7.411	23.686	22.914				12.455	11.765	8.488
7.73.2	23.683	22.940	20.859			12.676	11.980	8.749
8.018	23.659	22.932	20.928			12.868	12.162	9.654
3.314	23.624	22.906	20.964	-		13.065	12.348	9.37.0
8.67.7	23.575	22.863	20.971			13.295	12.572	9.755
9.002	23.528	22.819	20.953			13.495	12.764	10.102
9.344	23.478	22.772				13.691	12.961	10.465
9.702	23.427		20.881			_	13.154	
10.142	23.371	22.665	20.829	18.458		14.086	13.374	11.315
10.540	23.331	22.619		18.439		14.244	13.550	11.738
10.959	23.301	22.580	20.736	18.407		14.379	13.711	12.184
11.471	23.278	22.549	20.684	18.363		14.502	13.870	12.729
11.934	23.267	22.532	20.645	18.323		14.579	13.979	13.222
12.420	23.263	22.523	20.616	18.282		14.629	14.059	13.738
12.926	23.265	22.521	20.596	18.243		14.655	14.114	14.277
13.545	23.271	22.525	20.583	18.200		14.668	14.145	14.936
14.101	23.280	22.531	20.579	18.171		14.646	14.151	15.527
14.678	23.290	22.540	20.581	18.149	16.022	14.623	14.139	16.142

ANGLE OF ATTACK = MACH NO = 10.00 CONE ANGLE = 20.00 P / P FREE-STREAM AT PLANE ANGLES L/RN S/RN 0. 30-60. 90 . 120. 150. 180. 15.382 23.302 22.551 20.586 18.132 15.984 14.587 14.112 16.890 16.011 23.313 22.561 20.593 18.124 15.955 14.555 14.082 17.560 15.929 18.259 16.668 23.324 22.572 20.601 18.121 14.522 14.049 22.584 15.907 17.473 23.335 20.610 18.122 14.486 14.012 19.116 18.201 23.344 22.593 20.619 18.125 15.893 14.458 13.981 19.891 18.968 23.350 22.600 20.628 18.130 15.884 14.434 13.953 20.707 18.136 22.606 15.879 13.929 19.778 23.354 20.635 14.413 21.569 14.396 20.784 23.358 22.610 20.644 18.144 15.877 13.905 22.639 22.613 20.648 21.705 23.361 18.150 15.879 14.385 13.891 23.519 22.687 23.364 22.616 20.651 18.157 15.882 14.379 13.880 24.665 15.888 23.922 23.368 22.619 20.654 18.163 14.377 13.874 25.979 22.622 25.066 23.372 20.656 18.167 15.893 14.377 13.871 27.197 26.302 23.375 22.625 20.659 18.171 15.898 14.380 13.871 28.512 27.642 23.378 22.628 20.662 18.173 15.903 14.384 13.872 29.938 15.908 29.357 23.381 20.665 18.176 14.389 22.631 13.876 31.763 23.384 15.912 14.394 39.977 22.634 20.668 18.179 13.880 33.486 22.637 32.756 23.387 20.670 18.182 15.915 14.398 13.883 35.379 35.062 23.390 22.640 20.672 18.185 15.918 14.402 13.887 37.834 22.642 18.187 15.921 14.405 37-267 23.392 20.674 13.889 40.180 23.395 22.645 20.676 18.188 15.924 14.407 13.890 42.756 39.687 42.263 23.399 22.649 20.680 18.190 15.927 14.409 13.890 45.497 18.194 15.930 45.470 23.403 22.653 20.683 14.412 13.891 48.989 48.402 18.195 15.932 23.405 22.656 20.686 14.414 13.891 52.930 22.658 20.688 18.197 15.933 51.516 23.407 14.415 13.891 55.343 55.392 15.934 23.409 22.660 20.690 18.198 14.416 13.891 59.469 18.199 58.938 23.411 15.934 22.661 20.692 14.417 13.892 63.242 23.412 18.200 13.893 20.693 62.702 22.662 15.935 14.418 67.248 67.389 23.412 22.663 26.695 18.202 15.935 14.418 13.893 72.236 71.676 23.413 22.664 20.695 18.203 15.935 14.418 13.894 76.798 76.229 23.413 22.664 20.696 18.204 15.935 14.417 13.894 81.643 81.063 23.414 20.697 18.205 15.936 14.417 22.665 13.893 86.787 15.936 93.192 87.082 23.414 22.665 20.697 18.205 14.417 13.892 92.588 23.414 22.665 20.698 18.206 15.937 14.416 13.892 99.051 13.891 105.273 98.434 23.414 22.665 20.698 18.207 15.937 14.415 105.714 23.414 22.666 20.698 18.207 15.938 14.416 13.890 113.020 23.415 22.666 15.939 14.416 112.373 20.698 18.207 13.890 120.106 119.443 23.415 22.666 20.698 18.208 15.939 14.416 13.889 127.631 14.416 125.952 23.415 22.666 20.698 18.208 15.939 13.889 135.621 23.415 22.666 20.699 18.208 15.940 14.416 13.888 145.570 136.301 20.699 18.208 15.940 144.853 23.415 22.666 14.416 13.888 154.670 13.888 164.334 23.415 20.699 18.208 15.940 14.417 153.933 22.666 15.940 165.240 23.415 22.666 28.699 18.203 14.417 13.888 176.367 175.583 23.415 22.666 20.699 18.209 15.941 14:417 13.887 187.373 22.666 20.699 18.209 15.941 14.417 13.887 199.060 1864565 23.415 200.240 23.415 22.666 20.699 18.209 15.941 14.417 13.887 213.613

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ANGLE OF ATTACK = 3.0 MACH NO = 15.00 CONE ANGLE = 20.50 **ANGLES** P / P FREE-STREAM AT PLANE S/RN L/RN O. 30. 60. 90. 120. 150. 180. 34.467 1.222 .658 47.869 46.778 43.903 40.222 36.807 33.644 35.190 32.922 32.126 1.414 .838 38.524 46.097 45.008 42.152 33.380 31.199 42.993 40.173 36.616 30.436 1.504 1.017 44.075 28.483 1.953 1.252 37.838 34.386 31.282 29.207 41.679 40.608 27.313 35.759 2.129 29.312 26.621 1.518 39.617 38.536 32.341 25.004 1.787 38.088 36.972 34.128 30.669 27.647 25.680 2.423 35.940 32.955 29.381 26.310 24.337 23.665 2.729 2.074 37.114 28.322 25.115 23.100 22.421 3.886 2.410 36.757 35.435 32.153 3.400 24.523 2.705 37.061 32.041 27.931 22.398 21.690 35.613 2.997 37.847 36.238 32.284 27.783 24.126 21.877 21.130 3.711 37.190 23.968 20.779 4. 18 32.821 27.911 21.571 3.285 38.972 20.576 4.318 28.226 23.961 21.408 40.299 33.601 3.567 38.372 3.843 41.646 39.632 34.536 28.710 24.097 21.351 20.463 4.511 29.310 24.347 21.407 20.455 4.997 4.112 42.894 40.837 35.539 5.217 30.090 24,738 21.570 20.549 4.412 44.212 36.664 42.100 25.152 21.784 ,5.491 4.669 45.349 43.161 37.586 30.808 20.698 4.922 46.501 44.231 38.467 31.524 25.609 22.053 20.907 5.759 39.342 32.217 26.181 22.358 21.154 6.:24 5.171 47.634 45.310 26.608 22.699 21.430 6.286 40.232 32.890 5.417 48.690 46.358 41.133 33.555 27.120 23.070 21.743 6.546 5.662 49.622 47.325 22.082 6.807 48.174 42.019 34.228 27.632 23.458 5.906 50.403 28.214 23.921 7.105 42.973 35.018 22.489 48.974 6.187 51.100 7.369 28.729 22.868 6.435 51.545 49.518 43.721 35.727 24.340 29.254 24.763 23.261 7.637 6.687 51.846 49.922 44.369 36.439 23,659 7.911 5.944 52.017 50.193 44.904 37.135 29.797 25.195 8.191 25.639 24.070 7.207 52.077 50.342 45.324 37.794 30.363 30.946 26.095 24.492 8.479 7.477 52.053 50.388 45.630 38.396 8.776 7.757 38.924 31.541 26.576 24.927 51.973 45.827 50.354 32.218 25.456 9.129 39.424 27.152 8.089 51.838 50.251 45.929 25.943 9.452 8.392 45.928 39.764 32.791 27.684 51.693 50.126 9.788 8.708 51.525 49.977 45.862 40.011 33.324 28.233 26.460 26.996 9.038 51.342 49.807 45.755 40.167 33.802 28.788 10.140 9.383 51.161 49.625 45.620 40.237 34.210 29.334 27.545 10.507 9.743 51-001 49.446 45.465 40.232 34.538 29.852 28.088 10.890 34.785 28.612 11.292 10.121 45.294 40.170 30.324 50.874 49.290 29.157 34.965 30.787 11.771 10.571 50.775 49.156 45.094 40.053 10.982 44.935 39.924 35.040 31.113 29.571 12.208 50.723 49.078 35.048 31.361 29.914 12.666 44.806 39.779 11.412 50.701 49.034 50.701 35.003 31.530 30.179 13.142 11.859 49.017 44.713 39.626 12.322 50.718 49.824 44.658 39.476 34.920 31.624 30.364 13.634 44.630 39.341 34.813 31.651 30.473 14.146 12.803 50.742 49.042 30.513 14.679 39.233 34.691 31.624 13.303 50.770 49.069 44.626 39.148 30.488 44.648 34.543 31.543 15.307 13.894 50.863 49.101 15.878 14.430 50.834 49.130 44.663 39.104 34.415 31.444 30.419 34.298 31.330 30.323 16.468 39.083 14.985 50.869 49.160 44.687

MACH NO = 15.00 CONE ANGLE = 20.00 ANGLE OF ATTACK = 3.03

		P /	P FREE-ST	TREAM A	T PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150.	180.	S/RN
15.559	50.904	49.191	44.714	39.079	34.200	31.206	30.209	17.179
16.155	50.937	49.226	44.737	39.086	34.125	31.081	30.083	17.714
16.776	50.965	49.256	44.762	39.101	34.073	30.962	29.954	18.374
17.519	50.987	49.286	44.795	39.119	34.038	30.842	29.811	19.165
18.201	51.002	49.306	44.820	39.139	34.024	30.759	29.761	19.898
18.915	51.009	49.315	44.848	39.155	34.022	30.699	29.611	20.653
19.664	51.012	49.322	44.869	39.175	34.027	30.660	29.545	21.448
29.453	51.013	49.325	44.878	39.199	34.037	30.639	29.505	22.287
21.253	51.013	49.322	44.888	39.216	34.049	30.632	29.485	23.171
22.161	51.014	49.321	44.890	39.239	34.063	30.636	29.483	24.164
23.227	51.018	49.323	44.883	39.257	34.080	30.647	29.495	25.24C
24.224	51.022	49.325	44.883	39.269	34.096	30.660	29.512	26.300
25.287	51.028	49.330	44.882	39.265	34.114	30.673	29.529	27.432
25.428	51.036	49.337	44.881	39.263	34-130	30.686	29.545	28.646
27.657	5 <b>1</b> •₽044	49.344	44.887	39.255	34.140	30700	29.556	29.954
28.990	51.052	49.352	44.895	39.255	34.146	30.715	29.565	31.372
30.444	<b>51</b> .060	49.360	44.901	39.258	34.144	30-729	29.573	32.919
32.281	51-068	49.368	44.910	39.262	34.138	30:40	29.581	34.874
34.069	51.073	49.375	44.918	39.270	34.133	30742	29.588	36.777
36.057	51:078	49.380	44.923	39.279	34.131	30:•:736	29.587	38.892
38.275	51.083	49.384	44.928	39.284	34.132	30-724	29.579	41.253
40.763	51.088	49.389	44.931	39.287	34,137	30.708	29.562	43.900
43.562	51.093	49.394	44.933	39.290	34.140	30-694	29.573	46.880
46.681	51.098	49.400	44.937	39.291	34.140	30:•680	29.511	50.198
50.516	51.197	49.409	44.947	39.298	34.145	30:4:670	29.482	54.280
54.120	51-111	49.415	44.953	39.304	34.153	30.665	29.460	58,115
57.970	51.116	49.419	44.958	39.306	34.157	30.663	29.441	62.212
62.085	51.119	49.423	44.963	39.310	34.156	30,663	29.428	66.591
66.483	51.122	49.426	44.966	39.315	34.157	30.663	29.423	71.271
71.182	51.124	49.428	44.970	39.318	34.160	30-664	29.424	76.272
76.205	51.125	49.429	44.972	39.322	34.163	30664	29.427	81.617
82.369	51.126	49.430	44.973	39.324	34.165	30664	29.429	88.177
88.160	51.127	49.423	44.974	39.326	34.167	30665	29.428	94.339
94.349	51.127	49,431	44.975	39,328	34.168	30.665	29.425	100.926
100.964	51.128	49,432	44.976	39.330	34.171	30.666	29.423	107.965
108.034	51.128	49.432	44.976	39.330	34.173	30.667	29.422	115.489
115.589	51,128	49.433	44.977	39.331	34.175	30.668	29.421	123.529
123.664	51.128	49.433	44.977	39.332	34.176	30.668	29.419	132.122
133.575	51.129	49.433	44.978	39.333	34.177	30.670		142.569
142.886	51.129	49.433	44.973	39.333	34.178	30-671	29.414	152.578
152.838	51.129	49.433	44.978	39.334	34.179	30-671	29.414	163.158
153.473	51: 129	49.433	44.978	39.334	34.179	30.672	29.414	174.486
174.840	51.129	49.433	44.978	39.334	34.180	30.673	29.414	186.582
185.988	51.129	49.433	44.979	39.335	34.180	38:-673	29.413	199.51
201.897	51.129	49.433	44.979	39.335	34.181	30-674		215.376

MACH NO = 20.00 CONE ANGLE = 20.00 ANGLE OF ATTACK = P / P FREE-STREAM AT PLANE **ANGLES** L/RN 0. 30. 60. 90. 120. 150. 180. S/RN .658 84.385 82.452 77.360 79.842 64.798 60.656 59.198 1.222 1-014 77.445 75.535 70.555 54.279 58.571 54.724 53.379 1.501 1.465 69.847 67.948 63.068 57.054 51.716 48.190 46.968 2.381 2.020 65.032 57.758 62.967 51.518 46.147 42.692 41.513 2.672 2.553 64.368 61.933 55.907 48.909 43.089 39.451 38.231 3.238 66.872 56.549 36.245 3.830 3.109 63.870 48.285 41.632 37.582 3.635 71.177 67.675 58.979 49.170 41.449 36.858 35.363 4.390 75.063 4.093 71.382 61.945 50.831 42.016 36.844 35.178 4.877 4.559 78.804 74.903 65.015 53.036 43.136 37.301 35.433 5.373 5.001 82.559 78.389 67.817 55.249 44.557 38.091 36.015 5.843 5.394 85.781 81.555 70.440 57.179 45.973 39.018 36.760 6.262 84.472 5.896 88.527 73.277 59.230 6.700 47.492 40.137 37.711 5.212 90.400 86.634 75.866 61.362 48.990 41.311 38.755 7.132 91.422 87.954 5.589 77.840 50.408 63.383 42.419 39.765 7.533 6.999 91.873 88.712 79.411 55.472 52.019 43.637 40.879 7.969 7.418 91.845 88.909 80-410 67.313 53.722 44.917 42.034 8.416 7.819 91.583 88.760 80.865 68.699 55.335 46.193 43.175 8.842 8.266 91.154 88.414 80.939 69.792 57.010 47.668 44.506 9.318 87.950 45.945 8.732 98.643 8-0.727 78.464 58.508 49.209 9.813 9.218 70.747 90.106 87.410 80.359 59.734 50.740 47.448 10.331 89.696 86.933 79.928 52.065 9.689 70.727 60.584 48.833 10.832 19.218 89.405 86.545 79.415 70.503 61.175 53.297 50.221 11.396 39.264 78.945 10.771 86.317 70.155 61.451 54.262 51.410 11.983 11.304 89.246 86.233 78.624 69.764 61.471 54.894 52.280 12.551 78.425 11.902 39.312 86.250 69.320 61.311 55.294 52-940 13.187 86.339 12.523 89.422 78.356 58.925 61.031 55.432 53.315 13.849 13.122 89.537 86.450 78.381 68.656 60.707 55.374 53.434 14.486 13.792 89.664 86.574 78.469 68.485 15.198 60.329 55.171 53.365 14.487 89.791 86.698 78.586 58.421 59.970 54.873 53.151 15.938 15.157 89.904 86.812 78.698 68.437 59.700 54.545 52.866 16.651 90.005 15.906 86.926 78.815 68.507 59.500 54.174 52.502 17.448 15.685 90.080 87.018 78.929 58.606 59.392 53.831 52.115 18.277 17.436 90.126 87.079 79-028 68.705 59.361 53.572 51.778 19.077 18.277 90.156 87.120 79.117 68.811 59.387 53.374 51.476 19.972 19.153 90.169 87.142 7-9-182 68.914 59.451 53.261 51.260 20.904 19.999 69.003 30.170 87.149 79.220 59.530 53.220 51.136 21.804 23.947 90.166 87.147 79.241 69.089 59.623 53.233 51.075 22.813 21.935 90.157 87.140 79.248 69.157 59.717 53.287 51.078 23.864 22.965 90.147 87.130 79.245 69,204 59.809 53.364 51,126 24.960 23 - 960 90.138 87.120 79.236 69.229 59.890 53.447 51.196 26.319 25.076 90.131 87.110 79,225 69.243 59.968 53.541 51.287 27.207 26.240 79.213 90.127 87.103 69.245 60.031 53.635 51.384 28.446 27.365 90.124 87.099 79.213 69.240 53.720 60.075 51.477 29.543 28.626 98.123 87.097 79.194 69.232 60.107 53.805 51.577 30.985 29.941 90.122 87.097 79.189 69.222 60.125 53.879 51.671 32.384

MACH NO = 20.00 CONE ANGLE = 20.00 ANGLE OF ATTACK = 3.00 P / P FREE-STREAM AT PLANE **ANGLES** L/RN 0. 30. 60. 90. S/RN 120. 150. 180. 31.213 90.121 87.096 79.186 69.213 60.134 53.934 51.750 33.737 32.638 90.121 87.095 79.185 69.204 60.136 53.979 51.821 35.254 34.125 90.121 87.095 79.184 69.197 60.133 54.010 51.876 36.836 35.562 90.121 87.094 79.184 69.192 60.129 54.029 51.915 38.366 37.173 90.122 87.094 79.183 69.189 60.124 54.041 51.945 40.080 38.853 69.187 98.123 87.094 79.182 60.118 54.047 51.964 41.868 49.478 90.124 87.095 79.181 69.186 60.113 54.049 51.976 43.597 42.299 90.126 87.096 79.180 69.185 60.109 54.048 51.983 45.535 44.199 90.128 87.097 79.180 69.184 60.107 54:047 51.987 47.557 46:179 87.099 90.131 79.180 69.183 60.106 54.045 51.988 49.664 48.094 90.133 87.102 79.180 69.182 60.105 54.043 51.989 51.702 50.241 50.136 87.105 79.181 69.181 60.104 54.042 51.989 53.987 52.480 90.138 87.107 79.183 69.180 60.104 54.042 51.991 56.370 54.645 90.140 87.110 79.185 69.180 60.103 54.043 51.993 58.673 57.072 90.141 87.112 79.188 69.180 60.103 54.044 51.996 61.256 59.603 90.142 87.113 79,191 69.181 60.102 54.046 51,999 63.950 52.051 90.142 79.193 87.114 69.183 60.102 54.047 52.003 66.554 64.795 90.142 87.114 79.195 69.185 60.102 54.048 52.006 69.475 67.657 90.141 87.114 79.196 60.103 69.187 54.049 52.009 72.521 70.424 90.140 87.113 79.197 60.103 69.189 54.049 52.012 75.466 73.528 90.140 87.112 79.197 69.191 60.105 54.050 52.014 78.768 76.764 90.139 87.111 79.197 69.193 60.106 54.051 52.016 82.212 79.893 96.138 87.110 79.197 69.194 60.108 54.051 52.018 85.542 83.402 90-137 87.109 79.196 69.195 60.110 54.052 52.019 89.276 87.061 90.137 87.108 79.195 69.195 60.112 54.053 52.021 93.170 90.600 90.136 87.108 79.193 69.195 60.113 54.054 52.022 96.936 94.567 90.136 87.107 79.192 69.195 60.115 54.056 52.024 101.158 87.107 98.705 90.136 79.191 69.194 54.057 60.116 52.026 105.562 103.021 90.137 87.107 79,190 59.193 60.117 54.058 52,028 110,154 107.193 90.137 87.107 79.190 59.192 60.117 54.060 52.030 114.594 111.872 90.137 87.108 79.189 69.191 60.117 54.061 52.032 119.573 116.751 90.138 87.108 79.189 69.190 60.117 54.062 52.033 124.766 121.469 90.139 87.109 79.189 69.189 60.117 54.062 52.035 129.786 125.760 90.139 87.109 79.190 59.188 60.116 54.063 52.037 135.416 79.190 132.277 90.140 87.113 59.188 60.116 54.063 52.038 141.288 90.140 137.612 87.111 79.190 69.188 60.115 54.063 52.039 146.965 143.594 90.140 87.111 79.191 69.187 60.114 54.062 52.039 153.331 149.833 90.141 87.111 79.192 69.187 60.114 54.062 52.040 159.970 155.865 90.141 87.112 79.192 59.188 60.113 54.061 52.040 166.389 9.0.141 87.112 79.193 162.629 69.188 60.113 54.061 52.040 173.588 169.684 90-142 87.112 79.193 59.188 60.112 54.060 52.040 181.095 98.142 175.505 87.112 79.193 69.189 54.059 60.112 52.040 188.354 90.142 184-154 87.113 79.194 69.189 60.112 54.059 52.040 196.494 192-131 90.142 87.113 79.194 69.190 60.113 54.058 52.039 204.983 200.450 90.142 87.113 79.194 69.190 60.113 54.057 52.039 213.836

MACH NO = 25.00 CONE ANGLE = 20.00 ANGLE OF ATTACK = 3.01

		P /	P FPEE-S	TREAM	AT PLANE	ANGLES		
L/PN	0.	30.	60.	90.	120•	150.	180.	S/RN
.658	131.325	128.309	120.369	110.201	108.776	94.322	92.048	1.222
1.013	120.347	117.371	109.617	c 3.844	90.958	84.970	82.877	1.599
	198.376		97.833	38.481	80.185	74.706	72.807	2.078
	100.731	97.523	89.433	79.747	71.414	66.054	64.227	2.665
2.584	99.692	95.850	86.365	75.390	66.296	60.629	58.732	3.272
	193.813	99.066	87.511	74.516	64.102	57783	55.700	3.858
	110.574	105.070	91.379	75.943	63.840	56.671	54.342	4.410
	116.971		96.347	78.776		56.668	54.049	4.926
	122.802			82.203		57.402	54.465	5.412
	128.718			85.579		58.632	55.371	5.872
	134.081			88.759		60.177	56.615	6.313
			114.259	91.956		61.893	58.081	6.746
			118.268	95.314		63.678	59.673	7.162
			121.499	98.738		65.492	61.324	7.584
			123.830			67.360	63.019	8.011
			125.273			69.350	64.794	8.447
			125.911			7-1-517	66.713	8.398
			125.913			73.860	68.823	9.365
			125.512			76.308	71.111	9.851
			124.874		-	78.731	73.502	10.359
			124.071			80.970	75.866	10.890
			123.210			82.878	78.045	11.443
			122.463			84.359	79.897	12.020
			121.949			85.375	81.331	12.521
			121.676			85.934	82.311	13.246
			121.605			86.092	82.844	13.895
			121.685			85.937	82.984	14.568
			121.851			85.561	82.815	15.257
			122.049			85.033	82.425	15.993
			122.249			84.416	81.381	16.745
			122.445			83.786	81.241	17-527
			122.635			83.,226	80.582	18.339
			122.805			82.790	79.987	19.184
			122.939			82.496	79.514	20.262
			123.029				79.185	28.975
			123.082			82.294	78.995	21.926
			123.107			82.339	78.927	22.915
			123.111		-	82.442	78.956	23.946
			123.101			82.579	79.051	25.019
			123.084		-	82.732	79.185	26.137
			123.063			82.892	79.341	27-302
			123.041			83.052	79.508	28.515
			123.022			8-3-204	79.678	29.778
			123.008			83.340	79.845	31.194
			123.001		-	83.453	79.998	32.465
				·				

MACH NO = 25.00 CONE ANGLE = 20.00 ANGLE OF ATTACK = P / P FREE-STREAM AT PLANE ANGLES L/RN 90. 30. 0. 60. 120. 150 . 18G. S/RN 31.359 140.106 135.374 122.998 107.399 93.217 83.541 80.130 33.893 32.756 140.106 135.374 122.998 107.383 93.215 83.604 80.235 35.380 34.212 140.107 135.374 122.999 107.372 93.208 83.647 8G.316 36.930 35.729 140.108 135.373 122.999 117.365 93.198 83.674 80.375 38.544 83.687 37.399 140.108 135.373 122.999 107.362 93.186 80.414 40.225 38.955 140.110 135.373 122.998 107.361 93.175 80.440 83.692 41.977 49.670 140.111 135.374 122.996 197.361 93.166 83.591 80.454 43.801 42.456 140.114 135.374 122.995 137.361 93.161 83.686 80.461 45.702 44.316 140.118 135.377 122.994 107.360 93.158 83.680 80.462 47.582 46.255 140.122 135.380 122.994 107.358 93.157 83.675 80.460 49.745 49.274 140.126 135.384 122.994 107.357 93.157 83.672 80.458 51.893 50.377 140.130 135.389 122.995 107.355 93.158 80.458 83.671 54.132 52.568 140.133 135.393 122.998 107.354 93.158 83.672 80.459 56.464 54.851 140.136 135.397 123.002 107.353 93.157 83.674 20.464 58.893 57.229 140.138 135.400 123.006 107.353 93.157 83.677 80.470 61.424 59.707 140.139 135.402 123.010 107.355 93.156 83.580 80.477 64.360 62.288 140.139 135.403 123.014 107.357 93.156 83.683 80.484 66.807 64.977 140.139 135.493 123.017 107.360 93.156 83.686 80.490 69.669 63.687 67.778 140.138 135.403 123.020 107.363 93.156 80.496 72.656 70.697 140.137 135.402 123.021 107.367 93.157 83.689 80.501 75.756 73.738 140.135 135.401 123.021 107.370 93.159 83.690 80.505 78.992 76.906 140.134 135.399 123.021 107.373 93.164 83.691 80.508 82.363 80.206 140.132 135.397 123.020 107.375 80.510 93.164 83.692 85.875 83.644 140.131 135.396 123.018 107.377 93.167 83.693 80.512 89.534 87.227 140.130 135.394 123.016 107.377 93.346 93.170 83.694 80.514 95.959 140.130 135.393 123.014 107.377 93.173 83.696 80.516 97.338 94.847 140.130 135.392 123.012 107.377 93.176 83.698 86.519 161.456 98.898 140.130 135.392 123.011 107.375 93.177 83.700 80.521 105.767 103.119 140.130 135.392 123.009 197.374 93.179 83.702 80.524 110.258 197.516 140.131 135.393 123.008 107.372 93.179 83,784 80.527 114.937 112.097 140.132 135.393 123.007 107.370 80.530 119.812 93.180 83.706 115.869 140.133 135.394 123.007 107.368 93.179 83.707 80.533 124.891 121.841 140.134 135.395 123.008 107.367 93.179 83.709 80.536 130.182 127.021 140.134 135.396 123.008 107.366 93.178 83.709 80.538 135.695 132.418 140.135 135.397 123.009 107.365 93.177 83.709 80,540 141.438 138.041 140.136 135.398 123.610 107.364 93.175 83.709 80.542 147.421 143.898 140.137 135.398 123.011 107.364 93.174 83.709 80.543 153.655 80.544 160.149 150.001 140.137 135.399 123.012 107.364 93.173 83.708 156.359 140.437 135.400 123.012 107.364 93.172 83.707 80.544 166.915 162.983 140.138 135.400 123.013 107.365 93.172 83.706 80.544 173.964 169.884 140.138 135.400 123.014 107.366 93,171 83.705 80.544 181.309 177-2074 140-139 135-401 123-014 107-366 93.171 83.704 80.544 188.960 184.565 140.139 135.401 123.015 107.367 93.171 83.703 80.543 196.931

93.172

93.17.2

83.702

83.701

192.369 140.139 135.401 123.015 107.368

200.499 140.139 135.401 123.015 107.368

80.543 205.236

80.542 213.889

MACH NO = 30.00CONE ANGLE = 20.00 ANGLE OF ATTACK = 3.00 P / P FREE-STREAM AT PLANE ANGLES L/RN 60. 90. 120. 150. S/RN 30. 180. .658 188.704 184.364 172.941 158.314 144.757 135.471 132.203 1.222 1.044 171.355 167.091 155.988 142.013 129.320 120.774 117.787 1.498 154.372 150.118 139.201 125.777 113.895 106.063 103.353 2.116 2.052 143.946 139.292 127.577 113.592 101.597 93.900 91.279 2.705 2.620 142.971 137.372 123.573 197.653 94.506 86.334 83.603 3.309 3.166 149.253 142.330 125.488 106.601 91.516 82.389 79.386 3.891 3.680 159.042 151.074 131.201 108.771 91.226 80.865 77.504 4.438 4.984 4.193 168.724 160.329 138.835 113.236 80.939 92.835 77.126 4.643 177.136 168.109 145.421 118.161 95.456 82.063 77.790 5.462 5.069 185.679 176.078 151.648 122.935 98.630 83.864 79.126 5.915 5.476 193.284 183.689 158.100 127.458 101.947 86.090 80.926 6.349 5.873 199.070 189.965 164.506 132.069 105.218 88.536 83.024 6.771 6.264 202.906 194.504 170.224 136.933 108.482 91.067 85.286 7.187 6.683 205.082 197.491 175.075 142.227 112.146 87.793 93.824 7.634 7.080 205.669 198.744 178.261 146.876 115.834 96.497 90.203 8.956 7.486 205.358 198.872 180.179 150.899 119.744 99.372 92.748 8.488 7.905 204.558 198.316 180.962 154.076 123.709 102.522 95.524 8.934 8.340 203.428 197.372 180.873 156.312 127.482 105.931 98.592 9.396 8.792 202.091 196.141 180.235 157.608 130.810 109.488 101.924 9.878 9.265 200.817 194.788 179.257 158.055 133.500 112.999 105.402 10.381 9.794 199.801 193.534 177.943 157.813 135.561 116.446 109.070 10.945 10.311 199.241 192.741 176.666 157.145 136.698 119.153 112.196 11.494 10.849 199.021 192.319 175.602 156.201 137.142 121.234 114.831 12.366 11.408 199.074 192.216 174.894 155.092 137.033 122.640 116.856 12.662 11.989 199.293 192.347 174.535 153.990 136.532 123.390 118.222 13.280 12.593 199.581 192.605 174.467 153.084 135.765 123.571 118.945 13.922 13.264 199.913 192.928 174.625 152.442 134.763 123.277 119.101 14.637 13.915 200.231 193.237 174.886 152.140 133.794 122.673 118.798 15.329 14.590 200.544 193.549 175.182 152.077 132.940 121.852 118.178 16.347 15.290 200.819 193.848 175.481 152.190 132.299 123.909 117.332 16.793 16.016 201.031 194.103 175.775 152.406 131.893 119.966 116.352 17.566 16.771 201.178 194.291 176.057 152.666 134.701 119.143 115.362 18.369 17.612 201.275 194.422 176.320 152.955 131.689 118.476 114.428 19.264 18.429 201.320 194.492 176.503 153.221 131.808 118.073 113.756 20.133 19.279 201.334 194.522 176.622 153.476 131.999 117.867 113.298 21.337 20.162 201.326 194.525 176.690 153.709 132.225 117.826 113.044 21.978 21.082 201.306 194.510 176.719 153.898 132.463 117.910 112.966 22.957 22.039 201.277 194.484 176.720 154.034 132.703 118.074 113.025 23.975 23.036 201.247 194.452 176.703 154.120 132.934 118.283 113.176 25.336 24.149 201.222 194.419 476.673 154.167 133.160 118.532 113.398 26.220 25.232 201.208 194.396 176.639 154.181 133.333 118.774 113.636 27.37.2 26.359 201.201 194.383 176.605 154.173 133.464 119.014 113.889 28.572 27.533 201.199 194.379 176.577 154.153 133.555 119.240 114.146 29.821

31.122

32.475

28.755 201.198 194.379 176.557 154.127 133.612 119.438 114.395

30.027 201.198 194.380 176.548 154.098 133.641 119.599 114.619

MACH NO = 30.00 CONF ANGLE = 20.00 ANGLE OF ATTACK = 3.00

P / P FREE-STREAM AT PLANE ANGLES L/RN 0. 30. 60. 90. 120. 150. 180. \$/RN 31.448 201.199 194.381 176.546 154.068 133.650 119.728 114.819 33.988 32.831 201.200 194.381 176.548 154.045 133.644 119.814 114.966 35.459 34.271 231.201 194.381 176.550 154.029 133.631 119.870 115.077 36.992 **₹5.770 201.202 194.381 176.551 154.021 133.613 119.903 115.155** 38.587 37.330 201.203 194.381 176.551 154.018 133.594 119.919 115.208 40.248 38.955 201.204 194.381 176.550 154.018 133.576 119.922 115.240 41.977 40.770 201.207 194.381 176.548 154.019 133.563 119.917 115.259 43.909 42.537 201.210 194.382 176.546 154.019 133.556 119.907 115.264 45,788 44.376 201.215 194.385 176.544 154.019 133.553 119.896 115.262 47.746 46.291 291.221 194.389 176.543 154.017 133.553 119.888 115.257 49.784 48.285 201.227 194.395 176.543 154.015 133.554 119.883 115.252 51.906 59.361 201.233 194.402 176.545 154.012 133.556 119.882 115.250 54.115 56.415 54.938 291.242 134.414 176.554 154.009 133.556 119.889 115.260 58.385 57.288 201.245 194.419 176.561 154.009 133.556 119.895 115.270 61.486 59.735 201.246 194.422 176.567 154.010 133.555 119.900 115.281 64.090 62.283 201.247 194.423 176.573 154.013 133.555 119.905 115.292 66.862 64.936 201.246 194.424 176.577 154.017 133.554 119.909 115.302 69.625 67.698 201.245 194.423 176.581 154.022 133.555 119.912 115.311 72.565 70.785 271.243 194.422 176.583 154.028 133.556 119.914 115.319 75.849 73.789 201.241 194.420 176.583 154.033 133.558 119.916 115.325 79.146 76.917 201.239 194.417 176.583 154.037 133.561 119.917 115.330 82.775 80.174 201.237 194.415 176.581 154.040 133.565 119.918 115.334 85.841 83.565 291.235 194.412 176.579 154.042 133.570 119.919 115.337 89.450 87.097 201.234 194.410 176.576 154.043 133.574 119.921 115.339 93.208 91.042 201.233 194.408 176.573 154.043 133.579 119.923 115.341 97.407 94.883 201.233 194.407 176.570 154.042 133.582 119.926 115.344 101.494 98.881 201.233 194.407 176.567 154.041 133.585 119.929 115.348 105.749 103.045 201.234 194.407 176.565 154.038 133.587 119.932 115.351 110.180 107.381 201.235 194.407 176.564 154.036 133.588 119.935 115.356 114.794 111.895 201.236 194.408 176.563 154.033 133.588 119.938 115.360 119.598 116.596 201.237 194.410 176.562 154.030 133.588 119.940 115.364 124.600 121.848 201.238 194.411 176.563 154.028 133.587 119.942 115.368 130.189 126.960 201.240 194.413 176.564 154.026 133.585 119.943 115.372 135.629 132.282 201.241 194.414 176.565 154.025 133.584 119.943 115.375 141.293 137.824 201.242 194.415 176.566 154.024 133.582 119.943 115.378 147.191 143.595 201.243 194.416 176.567 154.024 133.580 119.943 115.379 153.333 149.605 201.243 194.417 176.569 154.024 133.579 119.942 115.381 159.727 156.319 231.244 194.418 176.570 154.024 133.577 119.941 115.382 166.872 162.853 201.245 194.418 176.571 154.025 133.577 119.939 115.382 173.826 169.657 201.245 194.419 176.572 154.026 133.576 119.937 115.382 181.767 176.742 231.245 194.419 176.573 154.027 133.576 119.936 115.381 188.606 184.120 271.246 194.420 176.573 154.028 133.576 119.934 115.380 196.457 191.802 201.246 194.420 176.574 154.029 133.576 119.932 115.380 204.633 201.385 201.246 194.420 176.574 154.030 133.577 119.931 115.379 213.766

MAC	= GN H	3.50	CONE ANGL	E = 5.0	O ANGL	E OF ATT	ACK =	5.00
L/RN	3.	P / F	P FREE-ST	REAM AT		ANGLES 150 •	180.	S/RN
.841	2.183	2.104		1.648				
• 931	1821	1753	1.578	1.362	1.172	1.047	1.005	
•980	1.801	1.734		1.399		1.042	1.000	
1.088	1.768	1701	1.530	1.321	1.139	1.02.1	971	
1.209	1.752	1.685	1.513	1.304 1.297	1.124	1.007 1.003	• 968	
1.346	1.742	1.675	1.504	1.297	1.118	1.003	964	
1.498	1.770		1.495	1.275	1.115	1.005	•965	
1.759	1.702		1.4/2	1.275	1.109	1.003		
C • 957	1.678	1.613	1.491	1.242	1.102 1.091	1.000		2.750
2.174	1.648		1.427	1 + 242	1.091	•995		2.989
2.412	1.517		1.400			• 989		3.250
2.673			1.348					3.534
2.955 3.423			1.312					4.003
			1.292			• 974		
3.764 4.470	1486		1.274					
4.522			1.258					
4.939			1.244			956		
5.383			1.233			• 953	-954	
5.853	1.445		1.223		97-9		•954	
6.610	1.440	1.374		1.061	•973	953	957	
7.149	1.479	1.372	1.208	1.055	•970	• 955	• 960	
7.717	1.439	1.371		1.052	969	95.7	.964	
8-314	1.441	1.372		1.049	• 96-8	• 96:0		8.913
8.940	1-444	1-373		1.047	968	• 96 2	.972	9.542
9.597	1.447	1.376		1.046	•969	• 96 6		
10.640	1.453	1.380		1.045	.971			
11.375	1.458	1.383			• 973		-985	11.986
12.142	1.463	1:.387			•975	.979	.989	12.756
12.943	1.468	1.391	1.203	1.047	• 978	- 983	. 994	13.559
13.777	1.472	1.395	1.205	1.048	•980	•98⁼7		
14.645		1.399	1.207	1.049	•982	• 99 1	1-002	
16.014	1.484	1.405	1.218	1.051	•986	• 996	1.007	16.642
16.972	1.489	1.409	1.212	1.0.52	•988	1.00.0	1.010	17.604
17.967	1.493	1.412	1.214	1.054	• 990	1.003	1.013	18.603
19.000	1,497	1.416	1.216	1.055	•992	1.005	1.016	19.640
20.072	1501	1-419	1218	1.057	. 994	1.008	1.018	20.4716
21.184	1.504	1-422	1.220	1.058	•996	1.010	1.020	21.833
22.337	1.508	1.425	1.222	1.059	•998	1.012	1.022	22.990
24.145	1.512	1-429	1.224	1.062	1.000	1.014	1.024	
25,404	1.515	1.431	1.226	1.063	1.001	1.016	1.025	26.068
26.708	1.517	1-433	1.228	1.064	1.002	1.017	1.026	27.377
28.056	1-•520	1.435	1.229	1.065	1.003	1.018	1.027	
29.452	1.522	1.437	1.23:	1.067	1.004	1.019	1.028	_
30.895	1.524	1.439	1,232	1.068	1.005	1.019	1.028	31.581

MAC	H NO =	3.50	CONE	ANGLE	=	5.00	ANGLE	OF	ATT	ACK :	=	·5 • 00
		D /	0 E0	EE-ST!	DEAM	AT	LLANE	ANGL	ES			
L/RN	0 •	30•		60 •	9(		120 •	150		18	0 •	SZRN
LFRN	0 •	304		<b>50 4</b>								
33.153	1.526	1.442	1.		1.78			1.02		1.0		
34.721	1.528	1.443			1.97			1.02		1.0		
36.341	1.530	1.444			1.0			1.02		1.0		
38.015	1.531	1.445		238	1.0			1.02		1.0		
39.744	1.532	1.447		239	1.0			1.02		1.0		
41.529	1.534	1.448		240	1.0		1.009 1.010	1.02		1.0		
44.316	1.535	1.450		241 242	1.0		1.010	1.02		1.0		46.993
46.249	1.536	1.451		243	1.0		1.011	1.02		1.0		•
48.244	1.537 1.538	1.452 1.452		243	1.0		1.011	1.02		1.0		
50.302	1.539	1.453		244	1.0		1.011	1.0		1.0		
52.426 54.616	1.540	1.454		245	1.0		1.012	1.02		1.0		
56.876	1.541	1.455		245	1.0		1.012	1.02				. 57.660
60.399	1.542	1.455		246	1.0		1.012	1.0	22	1.0		
62.839	1.542	1.456	-	247	1.0		1.012	1.0		1.0		
65.356	1.543	1.457		247	1.0	81	1.013	1.0		1.0		
67.950	1.543	1.457	1	248	1.0	81	1.013	i.02		1.0		
70.626	1.544	1.458		248	1.0		1.013	1.0		1.0		
73.384	1.544	1.458		249	1.0		1.013	1.0		1.0		
77.681	1. 545	1.459		· 25 U	1.0		1.014	1.0		1.0		
80.657	1.545	1.459		250	1.0		1.014	1.0		1.0		
83.725	1.546	1.460		250	1.0		1.014 1.014	1.0		1.0		
86.888	1.546	1.460		251	1.0 1.0		1.014	1.0		1.0		
90.148	1.546	1.461		• 251 • 251	1.0		1.014	1.0		1.0		
93.510	1.546	1.461 1.461		• 252	1.0	84	1.015	1.0		1.0		
98.748	1.547 1.547	1.462		• 25 2	1.0		1.015	1.0				103.334
102.375	1.547	1.462		. 252	1.0		1.015	1.0		1.1	028	107.588
109.972	1.547	1.462		• 253	1.0		1.015	1.0	22			110.960
113.949	1.547	1.462		.253	1.0		1.015	1.0		1.1	027	114.952
118.050	1.547		•	.253	1.0	185	1.015	1.0		1.	027	119.068
122.280	1.548		1	. 254	1.0	185	1.015	1.0		1.	027	123.314
128.874	1.548	1.463	1	• 254	1.0		1.016	1.0				129.933
133.443	1.548	1.463		• 254	1.0		1.016	1.0				134.520
138.156	1.548	1.463		• 255	1.0		1.016	1.0				139.251
143.018	1.548	1.463		• 255		185	1.016	1.0				144.132 149.167
148.034	1.548	1.463		• 255		185	1.016	1.0			027	
153.209	1.548	1.464		• 255		186	1.016	1.0 1.0				162.464
161.281	1.548			• 256		)86 )86	1.016 1.017	1.0				168.082
166.877	1.548	1.464		· 256		186 186	1.017	1.0			02	
172.651	1.548	1.464 1.464		.• 256 .• 256		086	1.017	1.0			02	
178.610 184.759	1.548 1.548	1.464		•257		086	1.017	1.0			02	
191.104	1.548	1.464		257		086	1.017	1.0				7 192.401
201.005	1.548	1.464		. 257		66บั	1.017	1.0			02	
COT . OO	T = 7 = 0	, - ,	-	. =								

٠	1ACH	но =	5.00	CO	NE A	NGLE	=	5.	00	A	NGLE	0F	ATT	ACK	=	5.00	1
					-0	.070			*	DI A	NF	ANGL	FS				
			P /	P 1			CAP	90.	1	120		150		1.8	0.	5	/RN
L/RI	4	0 •	30 •		60	•	•	7 U •		ILCU	•	100					
	_		7 460		3.09	1.	2.6	.46	:	2 • 25	3	1.99	7	1.9	10	1.	424
. 85		3.603	3.460		2.53		2.1			1.82	-	1.60		1.5		1.	517
.94		2.969	2.847		2 • 52		2.1			1.81		1.60		1.5		1.	571
1.00	•	2.954	2.833		2 • 46			198		1.78		1.57				1	692
1.12	-	2.885	2.767		2 • 37			25		1.72		1.53			+70	1	908
1,33		2.786	2.671		2•31 2•31			976		1.68		1.50			446	2.	.080
1.59		2.713	2.600 2.520		2.24			920		1.64	_	1.47			+21	2	.276
1.70		2.629			2.12			825		1.57		1.42			379		.613
2.03		2.493	2.388 2.293		2.04			757		1.52		1.39		1.3	349		870
2.29		2.393	2.201		1.95			687			7	1.3		1.3	318		•155
2.57		2.299	2.073		1.83			583		1.39		1.3		1.2	272		.641
3.06		2.169	1.996		1.76			519		1.34		1.2		1.3	239	4	.007
3.42		2.090	1.930		1.69			459		1.29		1.2			205	4	.406
3.82		2.022	1.869		1.6			405		1.24		1.4		1.:	171		.837
4.25		1.964	1.799		1.50			335		1.1		1.1		1.3	126		•541
4.95		1.896	1.763		1.5			296		1.1		1.1			101		.049
5.46		1.862	1.735		1.4			263		1.1		1.3		1.	080		•590·
6.00		1.837	1.706		1.4			223		1.0		1.0	5 O	1.	052		.463
6-87		1.811	1.693		1.4			201		1.0		1.0	33	1.	037		.097
7.49		1.802	1.686		1.4			183		1.0		1.0	19	1.	0.24		.745
8.14		1.801	1.683		1.4			163		1.0		1.0	03	1.	009		•793
9.19		1.807	1.685		1.4			152		1.0		. 9	96		005		•529
9.92		1.817	1.691		1.3			144		1.0		9	90	•	997	11	.297
10.68		1.828	1.699		1.3			138		1.0		• 9	86		994		.094
11.48		1.849	1.714		1.3			131			98	• 9	83		992		.347
12.73		1.865	1.729		1.4			129		•9	94		183		993	_	.220
13.60		1.881	1.738		1.4			127		• 9	92	• 9	83		994		.122
15.90		1.906	1.75		14			126		• 9	89		184		997		.530
16.87		1.922	1.77		1-4			126		• 9	88		86		000		.506
17-87		1.937	1.78		1.4			127		• 9	87		87		003		3.512
19.4		1.960	1.80			37		129		• 9	87		991		008		.075
20.5		1.973	1.81		1.4	44	1	130		• 9	186		993		012	-	1.154
21.6		1.986	1.82		1.4		1.4	132			18.6	•	995		019		2.263
23.3		2.004			1.4		1	135		• 9	8:7		999		020		982
24.5		2.015			1.4	68	1	.138				. 1. (			024		5.165
25.7		2.024			1.4		1	. 140			8.8		003	1.	627		5 - 37-8-
26.9		2.033			1.4	80	1	. 142			88		005		.03		7.622
28.8		2.045			1.4		1	. 146	)		89		007		03	-	9.545
30.1		2.052				+93		• 149			390		009		03		0.865
31.5		2.059			1.4	497		• 151			99.1		010		·03	_	2.216
33.6		2.067			1.5	504		• 155			992	-	012		.04		4.301
35.0		2.072	_			508		.157			993	-	014		. 04	· =	5.731 7.493
36.4		2-077			1.	512		.159			994	-	015		.04		7•193 9•446
38.7		2.083			1.	517		• 162			996		016		• 04		0.989
40.2		2.087		9	1.1	520	1	•: <u>1</u> 64	,	• '	997	1.	017	1	•.04	7 4	0 0 30 3

MAC	H NO =	5.00	CONE	ANGL	E =	5.00	)	ANGLE	OF	ATT	ACK =	5.00
			5 50		<b>5</b>		•					
1.400	^			EE-ST				ANE	ANGL		400	- 4514
L/RN	0 •	30.	1	60•	91	J •	12	U •	3. ラし	•	180.	S/RN
41.838	2.090	1.922	1.5	523	1.1	56	. 9	98:	1.01	7	1-050	42.565
	2.093	1.925		526	1.1	58	• 9	99	1.01		1.051	
45.912	2.097	1.929	1.	529	1.17	71	1.0		1.01		1.052	46.655
47.602	2.100	1.932	1.1	532	1.17	72	1.0	01	1.02		1.053	48.351
49.328	2.102	1.934	1.1	534	1.1	74	1.0	02	1.02	20	1.053	50.084
	2.105			537	1.1		1.0	04	1.02	1	1.054	52.751
	2.107	1-939		539		77		05	1.02		1.054	54.576
	2.108	1.941		540		79		06	1.02		1.054	
	2.110	1.944		543	1.18			0.7	1.02		1.055	
	2.111	1.945		544	1.1			08	1.02		1.055	
62-490	2.112	1.947		546	1.1			09	1.02		1.055	
	2.113	1.948		547	1.1		1.0		1.02		1.055	
67.708	2.114	1.950		549	1.1		1.0		1.03		1.055	
69.883	2.114	1.951		550 550	1.1		1.0		1.02		1.055	
72•110 75•554	2.115 2.115	1.952 1.953		552 557	1.1		1.0		1.02		1.055	
-	2.115	1-954		553 554	1.1			14:	1.02		1.055	
80.351	2.115	1.955		555	1.1			14 15	1.02		1.055	
84.111	2.115	1.956		557	1.1		1.0		1.02		1.055 1.055	
	2.115	1.956		558	1.19			17	1.02		1.055	
	2.115		1.1		1.19		1.0	_	1.02		1.055	
93.466	2.115	1.957	1.1	55.0	1.19			18	1.02	. <i>የ</i> ንን		94.391
	2.115			561		92		18	1.02	7	1.055	
	2.115				1.19	92		19	1.02			100.151
	2.115				1.19	93		19.	1.02			103,145
	2.115	1.958		565		93		20	1.02			107.784
109.992	2.115	1.959		566	1.19			20	1.02			110.979
113.259	2.115	1.959		568	1.19		1.0		1.02			114.259
118.321	2.115	1.959	1.	569	1.19	94	1.0	21	1.02			119.340
121.807	2.115	1.959	1.1	571	1.1	94	1.0	22	1.02		_	122.839
125.385	2.114	1.959	1.	572	1.19	94	1.0	22	1.03	0	1.055	126.431
130.930	2.114	1 - 959		574	1-1		1.0	23	1.03	0	1.055	131.997
134.748	2.114	1959		<b>57</b> 5	1.19		1.0		1.03		1.055	135,830
138.668		1,959		576			1.0		1.03	0	1.055	139.765
142.690	2.113	1-959		578	1.19		1.0		1.03		_	143.803
148.924	2.113	1.959		579	1.19		1.0		1.03			150.061
153.218	2.113	1.959		581	1.19		1.0		1.03			154.370
157.625	2.113	1.959		582	1.19		1.0		1.03			158.794
164.454	2.113	1.959		583	1.19		1.0		1.03			165.649
169.157	2.113	1.959		584 585	1.19		1.0		1.03			170.370
173.984	2.113	1.958		585 505	1.19		1.0		1.03			175.216
181.464 186.616	2.113	1.958		585 586	1.19		1.0		1.03			182.7.25
191.903	2.113 2.113	1.958		586 506	1.19		1.0		1.03			187.896
200.096	2.113	1.958		586 587	1.19		1.0		1.03		_	193.203
€ 0 0 ♦ 0-3 O-	C.TIO	1-958	1.	587	1.19	74	1.0	46	1.03	5	1・055	201.428

AM	CH NO =	10.00	CONE AN	IGLE =	5.00	ANGLE	OF	ATTA	CK =	5 • <b>0</b> 0
		p /	P FREE-	.CTDE AM	AT	PLANE	ANGL	FS		
L/RN	0.	30.	60			120.	150		180.	S/RN
	•	000		,	•					
.862	11.946	11.435	10.132	8.55	56 7	-191	6.31	.2	6.013	1.432
. 999	9.786	9.353	8.248	6.92	23 5		5.06		4.825	1.570
1.128	9.425	9.011	7.957				4.93		4.703	1.699
1.356	8,866	8.474				-	4.68		4.480	1.928
1.623	8.261	7.895		5.89			4.44		4.257	
1.941	7.611	7.271		5.44			4.17		4.017	
2.317	6.942	6.630		L 4.98			3.89		3.770	
2.745	6.323	6.025					3.62		3.526	
3.228	5.763					.590	3.34		3.274	
3.765	5.282	5.011		3.7		. 265	3.06		3.022	
4.355	4.881	4.615				976	2.81		2.791	
4.999	4.555	4.289				.719 .496	2.59		2.584 2.397	
5.693	4.295	4.026				306	2.22		2.227	
6.433 7.218	4.091 3.934	3.816 3.651				3 <u>u.</u> 6	2.08		2.077	
8.044	3.818	3.524				.011	1.94		1.947	
8.907	3.735					. 896	1.83		1.837	
9.806	3.682	3.360				.799	1.73		1.743	
10.736	3.653	3.314				.716	1.6		1.662	
11.698	3.647					.645	1.58		1.592	
12.689	3.661					.583	1.52		1.533	
13.707	3.692					•529	1.47		1.481	
14.754	3.739					.481	1.43		1.437	15.378
15.829	3.799	3.344	2.42	9 1.7	52 1	.439	1.39	91	1.400	
16.931	3.872		2.42	7 1.7	22 1	-402	1.35	57	1.367	
18.063	3.956					.368	1.32		1.340	
19.224	4.049					338	1.30		1.315	
20.416	4.149					. 311	1.27		1.295	
21.639	4.254					286	1.25		1.277	-
22.894	4.363					. 263	1.23		1.262	
24.181	4.474					.242	1.2		1.248	
25.499	4.583		2.58			222	1.2		1.237	
26.849	4.689					204	1.19		1.228	
28.229	4.790	4.096	2.67			L-187	1.17		1.220	28.984
29.639	4.884		2.72			1.171	1.10		1.213	30.319 31.761
31.075	4.972 5.053					l • 157 l • 143	1.1		1.203	
32.539 34.028	5.127					1.131	1.1		1.199	34.725
35.543	5.194					1.121	1.1		1.196	36.246
37.085	5.254					1.111	1.1		1.193	
38.659	5.307					1.103	1.1		1.191	39.374
40.270	5.353					L-896	1.0		1.189	
41.927	5.392					1.091	1.0		1.187	42.654
43.639	5.423	-				L.086	1.0		1.185	
45.398	5.444					1.083	1.0		1.183	

MAC	CH NO =	10.00	CONE ANGL	.E = 5.0	0 ANGL	E OF ATT	ACK =	5 <b>.0</b> 0
		p /	P FREE-ST	REAM AT	PLANE	ANGLES		
L/RN	0 •	30.	60.	90.	120.	150.	180.	S/RN
LIKN	0.4	39-8	00.	,,,,	1200	2700		
47.182	5.455	4.807	3.187	1.771	1.080	1.066	1.181	47.929
48.998	5.455	4.838	3.217	1.789	1.079	1.060	1.179	49.753
50.853	5.445	4.861	3.245	1.806	1.079	1.054	1.177	51.614
52.748	5.429	4.878	3.270	1.823	1.079	1.048	1.175	53.517
54.690	5.412	4.886	3.293	1.839	1.081	1.043	1.173	55.466
56.679	5.399	4.885	3.315	1.854	1.083	1.038	1.171	57.463
58.721	5.391	4.876	3.335	1.868	1.085	1.034	1.168	59.513
60.818	5.386	4.864	3.355	1.881	1.089	1.030	1.166	61.617
62.972	5.382	4.849	3.374	1.894	1.092	1.027	1.164	63.780
65.188	5.378	4.836	3.394	1.905	1.096	1.024	1.162	66.004
67.467	5.374	4.824	3.415	1.915	1.101	1.022	1.160	68.292
69.812	5.368	4.813	3.436	1.925	1.105	1.019	1.157	70.646
72.227	5.362	4.804	3.457	1.933	1-110	1.018	1.155	73.070
74.712	5.356	4.796	3.476	941	1.115	1.016	1.153	75.565
77.272	5.349	4.789	3.494	1.947	1.121	1.015	1.151	78.134
79.907	5.343	4.782		1-953	1.126	1.014	1.149	80.779
82.619	5.337			1.958	1.131	1.013	1.146	83.502
85.411	5.332	4.772		1.961	1.136	1.012	1.144	86.304 89.187
88.283	5.327			1.964	1.141	1.012	1.143	92.153
91.237	5.324	4.762	-	1.967	1.145	1.011	1.139	
94.276	5.321			1.969	1.149	1.011 1.011	1.137	98.341
97.401	5.320	4.752		1.972	1.153 1.157	1.012		101.567
100.616	5.319			1-976	1.160	1.012		104.886
103.922	5.318			1.980 1.986	1.164	1.012		108.300
107.322	5.318			1.994	1.167	1.013		111.811
110.820	5.317			2.002	1.171	1.014		115.423
114.418	5.317 5.317			2.011	1.174	1.014		119.138
118.11 <sup>9</sup> 121.926	5.317			2.021	1.178	1.015		122.959
125.841	5.317			2.031	1.181	1.017		126.889
129.868	5.318			2.042	1.184	1.018		130.931
134.009	5.320			2.052	1.187	1.019		135.988
138.268	5.322				1.190	1.020	1.124	139.363
142.648	5.324			2.072	1-192	1.021	1.123	143.760
147.153	5.326			2-081	1.194	1.023	1.123	148.282
151.786	5.329			2.090	1.196	1.024		152.933
156.552	5.332			2.098	1.197	1.025		157.717
161.453	5.334			2.106	1.197	1.026		162.637
156.494	5.337			2.113	1.198	1.027		167.698
171.680	5.340			2.119	1.198	1.028		172.903
177.015	5.343		3.422	2.125	1.198	1.029		178.258
182.502	5.345		3.414	2.130	1.198	1.029	1.119	183.767
188.147	5.348	4.7-36		2.134	1.197	1.030	1.119	189.433
193.955	5.351			2.138	1.197	1.031		195.263
201.960	5.354	4.740	3.391	2.141	1.197	1.032	1.118	203.298

MACH NO = 15.00 CONE ANGLE = 5.00 ANGLE OF ATTACK = P / P FREE-STREAM AT PLANE **ANGLES** L/RN 0 . 30. 60. 90. 120. 150. 180. S/RN 25.854 .864 24.731 21.870 18.418 15.437 13.519 12.870 1.434 .998 14.901 21.178 20.226 17.802 12.428 10.855 10.327 1.570 1.195 19.927 19.036 16.775 14.089 11.811 10.366 9.882 1.767 1.431 18.609 17.775 15.669 13.187 11.106 9.803 9.367 2.004 16.676 1.815 15.924 14.046 11.877 10.100 9.011 8.652 2.389 2.293 13.994 10.477 9.020 8.166 14.661 12.330 7.895 2.869 12.630 2.711 13.261 11.096 9,450 8.221 7.546 7.340 3.288 11.598 3.347 11.022 9.636 8.202 7.186 6.699 6.576 3.927 10.551 9.996 8.681 7.372 6.488 6.103 6.024 3.884 4.466 9.416 7.619 6.418 5.401 4.678 8.876 5.671 5.368 5.263 5.554 8.546 8.008 6.777 5.645 4.980 4.792 4.794 6.143 6.261 8.039 7.495 6.269 5.371 4.548 4.392 4.408 6.852 7.261 7.519 6.961 5.726 4.655 3.939 3.959 4.070 7.856 8.320 7.143 6.562 5.303 4.245 3.685 3.569 3.589 8.919 3.336 6.937 5.049 3.993 9.146 6.335 3.445 3.355 9.748 10.284 6.746 6.109 4.776 3.715 3.178 3.074 3.090 10.891 11.161 6.655 5.987 4.612 3.540 3.009 2.907 2.921 11.771 2.719 6.595 12.357 5.879 4.437 3.345 2.817 2.730 12.972 3.183 13.578 6.593 5.824 4.304 2.655 2.562 2.571 14.197 4.227 2.469 14.508 6.625 5.811 2.550 2.460 3.08C 15.130 15.762 6.707 5.829 4.149 2.962 2.427 2.343 2.353 16.389 16.712 6.795 4.108 2.886 5.865 2.346 2.266 2.278 17.343 17.989 5.940 2:.798 6.946 4.072 2.250 2.176 2.191 18.625 7.132 4.056 19.275 6.044 2.725 2.097 2.116 2.165 19.916 20.244 7.294 6.140 4.055 2.677 2.107 2.045 2.066 20.889 21.540 7.536 6.289 4.068 2.623 2.038 1.982 2.008 22.190 22.839 7.805 6.462 4.095 2-577 1.975 1.927 1.957 23.494 23.814 8.021 6.605 4.124 2.548 1.932 1.889 1.923 24.473 25.114 8.324 6.812 4.174 2.516 1.880 1.843 1.883 25.777 4.219 26.088 8.558 6.978 2.496 1.843 1.812 1.856 26.755 7.209 4.287 2.475 27.384 8.874 1.798 1.774 1.824 28.055 9.188 7.448 4.365 2.459 1.756 1.795 28.675 1.739 29.352 29.641 9.419 7.630 4.429 2.450 1.727 1.714 1.776 30.322 30.925 9.716 7.873 4.520 2.443 1.691 1.684 1.754 31.610 9.997 32.204 8.113 4.618 2.440 1.657 1.657 1.734 32.894 33.162 10.196 8.289 4.695 2-440 1.634 1.637 1.721 33.855 34.437 10.442 8.517 4.801 2.444 1.604 1.704 35.136 1.612 35.396 10.612 4.883 2.448 1.583 1.594 1.693 36.099 8.682 36.681 10.817 4.995 8.893 2.458 1.557 1.571 1.680 37.388 37.981 10.994 9.093 5.109 2-470 1.532 1.549 1.668 38.693 38.969 11.106 9.237 5.196 2-481 1.515 1.533 1.659 39.686 40.315 11.223 9.417 5.313 2.499 1.493 1.512 1.648 41.036 2.514 41.349 11.284 9.544 5.401 1.477 1.496 1.641 42.074 42.770 11.323 9.699 5.519 2.538 1.458 1.476 1.631 43:500 44.247 11.311 9.833 5.636 2.564 1.440 1.455 1.622 44.983

ANGLE OF ATTACK = MACH NO = 15.00 CONE ANGLE = 5.00 P / P FREE-STREAM AT PLANE ANGLES 150. 180. S/RN L/RN 60. 90. 120. 0. 30. 2.586 1.427 1.439 1.615 46.140 9.917 5.723 45.399 11.271 47.748 1.419 1.606 47.002 11.187 9.999 5.837 2.617 1.412 1.597 49.441 11.086 5.949 2.652 1.398 1.398 48.688 10.039 1.590 50.003 11.013 10.039 6.030 2.680 1.389 1.382 50.761 1.580 52.596 9.997 2.720 1.378 1.362 51.830 10.927 6.136 53.264 10.874 9.941 6.214 2.750 1.371 1.346 1.573 54.035 9.846 2.793 1.364 1.326 1.562 56.051 55.273 6.316 10.818 2.838 1.358 1.306 1.551 58.192 9.743 6.418 57.406 10.774 1.542 59.892 1.355 1.291 10.748 6.495 2.872 59.099 9.666 1.529 62.296 9.570 1.271 6.595 2.918 1.353 61.494 10.721 1.257 1.520 64.184 63.375 10.704 9.506 6.663 2.953 1.353 1.240 1.506 66.784 2.997 1.354 6.741 65.965 10.687 9.435 68.650 1.223 1.492 69.480 10.670 9.381 6.794 3.038 1.357 1.481 71.564 70.727 10.661 9.349 6.816 3.066 1.360 1.212 1.137 73.579 9.318 6.824 3.101 1.365 1.467 74.427 10.653 3.133 1.372 1.184 1.452 77.386 9.295 6.814 76.526 10.650 9.282 1.442 78.799 6.799 3.155 1.377 1.174 79.668 10.651 1.385 1.163 1.428 82.797 81.917 9.269 6.775 3.183 10.653 1.392 1.155 1.417 85.210 6.755 3.204 84.321 9.262 10.655 1.464 88.519 3.234 1.402 1.146 87.617 10.653 9.257 6.726 3.267 1.414 1.137 1.391 91.935 91.020 10.649 9.256 6.695 1.423 1.382 94.570 10.645 9.257 6.672 3.294 1.131 93.645 1.437 97.246 6.639 3.333 1.124 1.370 98.185 10.639 9.260 1.358 101.918 6.606 3.373 1.451 1.118 100.965 10.634 9.264 1.349 104.798 6.581 3.404 1.462 1.114 10.632 9.267 103.834 1.109 1.338 108.748 6.548 3.444 1.477 107.769 10.630 9.272 1.333 111.796 1.105 9.275 6.522 3.473 1.488 110.805 10.630 9.279 6.489 3.509 1.502 1.101 1.320.115.977 114.970 10.631 1.516 1.098 1.311 120.296 9.282 6.457 3.541 119.273 10.634 1.304 123.630 9.284 6.433 3.563 1.525 1.095 122.594 10.637 3.589 1.537 1.092 1.295 128.203 6.404 127.150 10.642 9.286 1.545 1.091 1.289 131.733 3.605 9.288 6.383 130.667 10.646 1.281 136.575 1.088 1.554 135.491 9.290 6.356 3.624 10.652 1.273 141.578 6.331 3.639 1.563 1.086 140.475 10.660 9.293 1.085 1.268 145.439 9.295 6.313 3.649 1.568 144.321 10.666 1.261 150.736 1.575 1.084 149.597 6.289 3.659 10.675 9.299 1.254 156.208 1.082 155.048 10.685 9.302 6.267 3.667 1.580 1.249 160.430 159.255 10.692 9.305 6.250 3.671 1.584 1.082 9.309 6.229 3.675 1.588 1.081 1.244 166.224 10.701 165.027 6.214 3.676 1.590 1.081 1.239 170.696 169.481 10.707 9.313 1.234 176.832 9.317 6.195 3.676 1.593 1.080 175.594 10.716 3.675 1.229 183.174 6.177 1.596 1.080 10.723 9.323 181.912 3.673 1.225 188.059 6.164 1.598 1.080 9.327 10.728 186.788 1.602 1.221 194.788 1.081 9.332 6.148 3.669 193.482 10.735

3.663

1.606

9.338

200.401

10.741

6.134

1.081

1.217 201.734

	MA	сн ио	=	30.00	COV	ΙE	ANG	LE	=	5.0	0	ANG	ELE	0F	AT.	TACK	=	5.00
				_							_							
1 41	221				PF			IKE				LANE	: 1	ANGL				0.4011
L/	ΚN		0 •	30	•	t	0 •		90	•	1	20.		150	<b>j</b> •	1	80.	S/RN
. 86	s <i>I</i> .	45.3	2 9	43.34	3 70		303	70	22	-	26	982	27	2 6 4	2	22.	1.72	4 1.75
1.09		36.4		34.83			575		.69			442		3.61 3.74			-	1.435 1.627
1.20		34.1		32.58			595		.08			204		7.75		17. 16.		1.839
1.6		30.8		29.44			951		. 87			498		5.38		15.		2.181
2.03		27.2		26.02			334		. 41			585		.88		14.		2.611
2.5		23.7		22.67			930		. 95			699		3.42		13.		3.131
3.10		20.7		19.70			248		. 67			835		L•92		11.		3.740
3.89		18.1		17.19			333		.68			160		3.49		18.		4.439
4.6		16.1		15.18			336		.98			711		9.25			195	5.225
5.5		14.5		13.61			526		.60			485		3.17			177	
6.43		13.3		12.40			341		.50			485		7.24			279	
7.4		12.4		11.48			+15		. 63			678		5 . 47			515	
8.4		11.7		10.79			89		. 93			025		5.84			885	
9.50		11.3		10.27			17			ģ		494		3.32			364	
10.6		10.9		9.89			566		. 92			060		90			929	
12.1		10.7		9.57			232		.46			619		4.46			486	
13.28		10.6		9.41			966		.17			329		4.18			197	
14.4		10.6		9.33	_		759		. 92			082		3.94		_	956	
15.6	57	1-0.7	50	9.31			599		.71			869	3	3.73	36		753	
16.8	49	10.8	89	9.34	) -ε	. L	+79	4	.53	2		685	3	3.56	50		579	
18.04	40	11.0	87	9.41	6 €	. 3	392	4	.37	9	3.6	523	3	3.40	8	3.	429	18.676
19.2	27	11.3	42	9.53	5 6	• 3	334	4	.24	8	3.	380	3	3.27	4	3.	300	19.868
20.4	07	11.6	52	9.69	4 6	. 3	302	4	• 13	4	3.	254	3	3.15	57	3.	187	21.952
21.57		12.0		9.89	_	• 2	291	4	.03	6	3.	140		3.05		3 •	088	22.226
22.73		12.4		10.12			301		. 95			038		2.96			001	23.387
23.87		12.8		10.39			329		. 88			946		2.87			925	24.534
25.0		13.3		10.69			374		. 81			862		2.8			857	
26.1		13.8		11.02			+34		.76			786		2.73			797	
27.21		1-4 - 4		11.37			808		.72			716		2.67			744	
28.2		14.9		11.74			595		.68			651		2.62			696	28.960
29.6		15.6		12.23			720		.64			5.77		2.59			644	
39.6		16.1		12.63			331		. 62			522		2.51			607	
31.6		16.7		13.04			352		.60			471		2.47			573	32.360
				13.45								424		2 • 43			543	
33.6		17.6		13.85			217		.58		_	379		2.39			515	34.382
34.6	-	18.1		14.26			361		.57			337		2.35			489	35.380
35.6		18.5		14.65			511		.57			297		2.32			466	36.374
36.69		18.9		15.04			568		.58			258		2.29			445	37.368
38.6		19.4		15.423 15.78	_		332		.58			222		2.28			424	38.367
39.6		19.6		16.13			102 L78		• 59 • 60			187 153		2 • 23 2 • 20		-	406 388	39.376 40.401
40.7		19.7		16.46			1/0 360		6.62			120		2.17			371	41.447
41.7		19.8		16.76			548		63		-	089		2.14			355	42.520
42.8		19.7		17.03			742		.66			058		2.11			339	43.627
44.0		19.6		17.26			341		.68		-	028		2.08			324	44.773
								•	"	•			•	`			•	

МА	CH NO =	20.00	CONE AND	GLE = 5.1	00 ANGL	E OF ATT	ACK =	5.00
		D /	P FREE-S	STREAM A	T PLANE	ANGLES		
L/RN	•						4.00	CADN
LIKN	0 •	30.	60.	90•	120.	150.	180.	SZRN
45.532	19.416	17.465	9.197	7 720	4 002	2 067	9 706	4.6 077
46.779	19.206			3.720	1.992	2.047	2.306	46.273
		17.546	9.404	3.753	1.965	2.617	2.291	47.525
48.064	18.991	17.550	9.614	3.789	1.939	1.986	2.277	48.815
49.397	18.786	17.477	9.824	3.828	1.915	1.956	2.262	50.153
50.785	18.602	17.339	10.036	3.870	1.891	1.924	2.248	51.547
52.238	18.444	17.150	10.251	3.916	1.870	1.893	2.232	53.005
53.767	18.316	16.926	10.468	3.966	1,850	1.860	2.217	54.539
55.381	18.219	16.685	10.688	4.020	1.832	1.828	2.200	56.160
57.095	18.151	16.440	10.907	4.078	1.815	1.794	2.183	57.880
58.921	18.108	16.206	11.116	4.141	1.801	1.761	2.164	59.714
60.876	18.084	15.994	11.302	4.208	1.789	1.727	2.144	
62.975	18.072	15.812	11.449	4.278	1.780	1.694	2.123	
65.233	18.069	15.669		4.351	1.772	1.660	2.100	66.049
67.634	18.075	15.568	11.571		1.768	1.627	2.075	- 1
70.163	18.089		11.543	4.499	1.766	1.595	2.048	70.998
73.476	18.112	15.473	11.451	4.593	1.766	1.557	2.012	74.324
76.213	28.131	15.470	11.357		1.769	1.530	1.983	_
79.029	18.143	15.480	11.257		1.774	1.504	1.954	-
81.926	18.148	15.496	11.159	4.832	1.781	1.480	1.924	
84.907	18.144	15.515	11.064	4.921	1.790	1,458	1.896	
87.977	18.133	15.537	10.974	5.015	1.802	1.438	1.868	-
91.138	18.117	15.560	10.888	5.113	1.817	1.420		92.053
94.395	18.100	15.586	10.806	5.210	1.834	1.484	1.815	
97.752	18.084	15.611	10.723	5.303	1.852	1.389	1.790	_
101.213	18.072	15.634	10.655	5.389	1.872	1.375		102.166
104.780	18.064	15.653	10.587	5.465	1.893	1.362		105.748
108.459	18.060	15.666	10.525	5.531	1.914	1.351		109.440
112.252	18.060	15.674	10.469	5.587	1.936	1.340	1.698	113.248
116.164	18.055	15.678	10.418	5.632	1.957	1.330		117.175
120.198	18.073	15.679	10.370	5.667	1.978	1.320		121.224
125.417	1.8.088	15.679	10.314	5.700	2.003	1.309		126.463
129.737	18.103	15.678	10.271	5.719	2.023	1.301		130.800
134.191			10.229	5.734		1.293	1.596	135.271
138.781	18.138	15.679	10.190	5.744	2.060	1.286	1.578	139.878
143.512	18.156	15.680	10.152	5.750	2.077	1.279	1.552	144.528
148.388	18.174	15.682	10.116	5.752	2.092	1.273	1.546	149.522
153.414	18,191	15.685	10.082	5.750	2.106	1.267	1.531	154.568
158.595	18.207	15.689	10.050	5.745	2.119	1.261	1.516	159.768
163.935	18.221	15.695	10.020	5.737	2.131	1.256	1.501	165.129
169.441	18.234	15.702	9.992	5.726	2.141	1.250	1.488	170.656
175.119	18.245	15.710	9.966	5.712	2.151	1.246	1.475	176.355
180.974	18.254	15.720	9.942	5.696	2.161	1.241	1.462	182.232
187.013	18.262	15.730	9.920	5.678	2.171	1.238	1.450	188.295
193.244	18.269	15.740	9.899	5.658	2.182	1.235	1.439	194.549
201.311	18.275	15.753	9.877	5.632	2.196	1.232	1.426	202.647

5.00

ANGLE OF ATTACK =

5.00

CONE ANGLE =

MACH NO = 25.00

P / P FREE-STREAM PLANE AT ANGLES L/RN 0. 30. **50.** 90. 120. 150. 180. S/RN 70.370 67.282 59.435 49.977 41.826 34.829 36.604 1.435 vE64 47.590 39.843 29.041 1.055 56.604 54.064 33.235 27.630 1.626 1.838 52.926 50.539 44.489 37.333 31.299 27.493 26.216 2.266 46.395 44.295 1.703 39.037 32.933 27.898 24.787 23.756 2.277 38.919 34.285 29.056 22.425 2.729 2.153 40.769 24.897 21.631 35.505 33.806 29.680 25.254 19.571 2.691 21.950 20.128 3.268 21.015 3.487 29.833 28.322 24.711 18.431 17.220 16.929 4.067 4., 222 26.223 24.787 21.412 18.127 16.000 15.141 14.992 4.806 5.256 22.788 21.387 18.180 15.207 13.444 12.923 12.916 5.844 6.165 20.755 19.352 16.200 13.386 11.796 11.414 11.467 6.756 7.136 19.218 17.792 14.649 11.934 10.464 10.153 10.219 7.730 8.420 10.527 9.151 9.890 8.954 17.835 16.353 13.170 9.019 8.137 9.492 17.060 15.513 12.262 9.647 8.321 8.079 10.395 10.595 16.517 7.640 7.407 7.455 14.888 11.541 8.931 11.203 12.005 16,096 14.343 10.842 8.210 6.949 6.725 6.759 12.618 13.151 15.928 7.742 6.495 6.278 6.305 13.768 14.060 10.409 14,594 15.886 13.856 `9.991 7.259 6.020 5.816 5.840 15.217 15.752 15.967 13.792 9.735 6.937 5.599 5.507 5.531 16.380 5.240 5.267 16.909 16.137 9.537 6.663 5.420 17.540 13.802 9.355 18.345 16.470 13.907 6.373 5.119 4.954 4.986 18.982 19.481 14.658 16.830 9.255 6.175 4.910 4.758 4.795 20.123 4.589 20.883 17.391 14.327 9.178 5.965 4.681 4.545 21.530 21.985 17.926 14.604 9.150 5.821 4.519 4.396 4.447 22.636 23.068 18.530 14.932 9.149 5.695 4.373 4 . 264 4.322 23.723 24.393 5.561 4.209 19.373 15.411 9.181 4.117 4.185 25.053 9.232 4.092 25.429 20.107 15.843 5.470 4.013 4.090 26.093 26.443 9.302 5.391 3.919 4.005 27.111 20.882 16.315 3.984 27 680

#### NSHC/HOL/TR 75-45

M.	CH NO =	25.00	CONE A	NGLE =	5.00	ANGLE	OF ATT	ACK =	5.00
		0 /	ם בסבב	-STREAM	AT I	PLANE	ANGLES		
L/RN	0.	30.	60	-		120.	150.	180.	S/RN
CAM	U •	30.	OU.	• 3		1500	1700	1000	37 1(14
45.628	29.850	27.350	13.57	8 5.1	83 2	.749	2.856	3.217	46.369
46.692	29.480	27.413	13.89	6 5.2	16 2	.708	2.815	3.197	47.437
47.786	29.108	27.362	14.22	2 5.2	54 2	,669	2.774	3.177	48.536
49.205	28.670	27.149	14.64	3 5.3	05 2	.622	2.722	3.152	49.961
50.390	28.356	26.874	14.99	1 5.3			2.679	3.132	51.150
51.945	28.027	26.430					2.624	3.107	52.710
53.257	27.822	26.019	15.81	7 5.4	70 2		2-578	3.086	54.028
54.641	27.670	25.583					2.532	3.064	55.417
56.486	27.553	25.034					2.473	3.035	57.269
58.068	27.510	24.617					2.424	3.010	5 <b>8.</b> 857
60.199	27.506	24.152					2.362	2.977	60.996
62.031	27.53.1	23.844			_		2.312	2.948	62.835
63.932	27.572	23.614					2.262	2.917	64.744
56.416	27.628	23.429					2.203	2.874	67.237
68.505	27.67.2	23.354					2.156	2.838	69.334
70.702	27.715						2.111	2.7.99	71.539
73.629	27,763	23.357					2.056	2.747	74.478
76.142	27.796	23.403					2.013	2.704	77.000
79.502	27.819	23.474	_				1.962	2.647	80.373
82.284	27.817						1.925	2.602	83.166
85.143	27.795	23.594					1.891	2.556	86.036
88.833	27.746	23.670					1. 852	2.499	89.739
91.882	27.702	23.732					1.824	2.455	92.800
95.021	27.662	23.791					1.798	2.412	95.951
99.078	27.624						1.768		100.023
102.434	27.604	23,889					1.746		103.392
106.772	27.595	23.913					1.720		107.747
110.362	2:7.598						1.701		111.350
114.060	27.609						1.683		115.163
118.840	27.631						1.663		119.861
122,793	27.655						1.648		123.829
127.899	27.692	23.884					1.630		128.955
132.119	27.724 27.757	23.871	15.16				1.617		133.191 137.551
136.463 142.071	-						1.604		-
146.706	27.797 27.825	23.864					1.589 1.577		143.181 147.834
151.477	27.851		-				1.566		152.623
157.639	27.877					.781	1.552		158.809
162.734	27.893	23.072					1.541	_	163.922
169.316	27.919	23.899	-		-		1.528		170-530
174.761	27.921	23.916					1.518		175.995
180.370	27. 930					.869	1.509		181.626
187.624	27. 938					.894	1.499		188.908
193.627	27. 943			-		-914	1.492		194.934
201.393	27: 948	23.994				-	1.484		202.730

CONE ANGLE = MACH NO = 30.00 ANGLE OF ATTACK = 5.00 5.00 P / P FREE-STREAM AT PLANE ANGLES LIRN 60. 90. 30. 120. S/RN 150. 188. .865 100.967 49.913 96.534 85.257 71.674 59.966 52.464 1.435 1.055 31.215 77.558 68.269 57.142 47.653 41.528 39.603 1.626 1.343 74.132 70.783 62.312 52.313 43.916 38.636 36.872 1.916 1.702 66.487 63.474 55.930 47.175 39.955 35.494 34.017 2.276 2.277 56.402 53.815 47.375 40.205 34.575 31.268 30.217 2.853 2.835 49.031 46.666 30.333 27.939 40.930 34.822 27.229 3.413 3.656 41.215 39.089 34.032 28.926 25.410 23.813 23.453 4.237 4.611 35.241 24.054 33.223 28.532 21.273 20.270 20.146 5.196 5.454 31.649 29.649 20.953 18.520 25.115 17.845 17.865 6.752 6.624 28.310 26.306 21.847 17.935 15.777 15.297 15.388 7.216 7.615 26.372 24.324 19.860 14.052 16.967 13.651 13.748 8.212 8.917 24.632 22.493 17.954 14.248 12.348 12.002 12.093 9.519 10.272 23.470 21.202 16.524 12.851 11.026 1-0.702 10.777 10.878 11.382 12-862 20.467 10.174 15.636 11.957 9.859 9.917 11.993 12.792 22.419 19.836 14.770 9.301 8.998 11.049 9.040 13.408 13.931 22-260 19.517 14.231 10.452 8.720 8.431 8.466 14.551 15.357 22.290 19.301 9.833 7.873 13.797 8.110 7.839 15.983 22.510 16.779 19.252 7.599 13.316 9.324 7.348 7.385 17.411 17.908 7.013 22.820 19.315 13.079 8.980 7.248 7.055 18.543 19.300 23.367 19.511 12.863 8.613 5.866 6.653 6.702 19.941 20.396 23.932 19.757 6.600 12.745 8.362 6.404 6.459 21.941 21.739 24.789 20.169 8.092 12.656 6.305 6.132 6.198 22.389 23.049 25.802 20.694 12.625 7.863 6.048 5.897 5.974 23.764 24.070 26.713 7.706 5.819 21.188 12.637 5: 863 5.731 24.739 25.314 27-962 21.892 7.537 12.693 5.656 5.547 5.648 25.978 26.282 29.034 22.517 7.421 12.768 5.507 5.415 5.528 26.950 27.459 3.0.445 23.367 12.895 7.297 5.337 5.267 5.395 28.131 5.134 28.599 31.919 24.283 13.054 7.194 5.184 5.278 29.276 29.487 33.104 25.055 13.202 7.123 5.071 5.038 5.195 30.167 31.568 34.602 26.062 13.410 7.049 4.941 4.928 5.101 31.252 31.411 35.-790 26.893 13.594 7.800 4.845 4.847 5.033 32.399 32.442 37.240 27.957 6.949 4.753 4.956 13.843 4.734 33.134 33.451 38.629 29.041 14.111 6.908 4.630 4.666 4.886 34.146 34.245 39.681 29.917 14.340 6.882 4.552 4.601 4.835 34.943 35.225 40.900 31.016 6.857 4.459 35.927 14.642 4.523 4.776 36.003 41.782 31.895 14.897 6.843 4.389 4.465 4.731 36.707 36.971 42.744 32.985 4.305 15.232 6.831 4.394 4.679 37.680 37.942 43-521 34.059 15.586 6.826 4.224 4.326 4.631 38.654 38.724 43.990 34.899 4.594 15.885 6.826 4.161 4.274 39.439

6.832

6.841

6.858

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3: 877

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42.279

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39.714

40.521

41.553

42.619

43.502

44.650

35.913

36.683

37.570

3.8.344

38.854

39.316

44.366

44.491

44.428

44-138

43.764

43-159

16.276

16.607

17.041

17.503

17.893

18.409

MA	CH NO =	30.00	CONE A	NGLE =	5.00	ANGLE	OF ATT	ACK =	5.00
		5.4	0 5055						
L/QN	0			-STREAM		LANE	ANGLES		
LYKN	0.	30.	60	• 9	0 • 1	20.	150.	180.	S/RN
45.592	42.613	39.523	18.83	9 6.9	71: 3.	691	3.860	4.343	46.333
46.798	41.899	39.562	19.39			623	3.794	4.309	
47.792	41.335	39.418	19.86			569	3.740	4.283	48.542
49.080	40.677	39.037				503	3.671	4.250	49.835
59.429	40.102	38.461	21.11			439	3.601	4.218	51.189
51.559	79.718	37.890	21.65			389	3.542	4.191	52.324
53.049	39.746	37.085	22.36			329	3.467	4.158	
54.312	39.138	36.403	22.95			282	3.405	4.130	
55.993	38.990	35.552	23.68			227	3.325	4.094	
57.896	38.954	34.749	24.36			176	3.242	4.055	
59.367	38.989	34.175	24.83			138	3.174	4.021	
61.496	39.087	33.597	25.26			0.96	3.089	3.975	62.208
63.090	39.183	33.263	25.44			067	3.023	3.936	63.898
65.275	र9.296	32.993	25.47			036	2.942	3.882	66.991
67.570	39.397	32.875	25.31			010	2.864	3.824	68.395
69.503	39.468	32.868	25.08			993	2.802	3.774	70.335
72.064	39.550	32.938	24.71			978	2.727	3.707	72.966
74.251	79.609	33.033	24.37			970	2.668	3.650	75.102
77.192	39.664	33.170	23.93				2.597	3.57.5	78.155
80.409	39.671	33.309	23.49			977	2.528	3.496	81.283
83.137	39.634	33.419	23.16			992	2.476	3.431	
86.654	39.547	33.560	22.79	7 9,9			2.417	3.348	
89.558	39.462	33.672	22.54	7 10.2	45 3.		2.374	3.282	
93.308	39.364	33.805	22.28	8 10.6			2.325	3.201	
97.197	39.292	33.916	22.08	6 10.9	07 3.		2.279	3.122	
100.412	39.257	33.974	21.95	4 11.1	08 3.	132	2.245	3.062	101.363
104.568	39.241	34.005	21.31		99 3.	164	2.206	2.991	185.534
108.004	39.245	34.004	21.71				2.176	2.937	108.984
112.445	39-266	33.982	21.59		3.	225	2.143	2.87.3	113.442
117.050	39.304	33.954	21.47				2.112	2.812	118.364
120.855	39.345	33.932	21:38			294	2.089	2.765	121.884
125.767	39.407	33.907	21.27				2.062		126.814
129.822	39.460	33.889	21.18			37.0	2.042	2.665	130.885
135.053	39.526	33.869	21.09	_		413	2.018	2.612	136.136
149 - 471	39.585	33.854	21.00			456	1.995		141.574
144.943	39.625	33.847	20.94			489	1.977	2.521	146.364
150.714	39.665	33.849	20.87			530	1-955		151-857
155.481	39.689	33.859	20.81			562	1.938		156.642
151.633	39.713	33.881	20.76				1.918		162.818
153.012	39-739	33.910	20.70				1.898		169.221
173.284	39.740	33.936	20.66	_		678	1.883		174.514
180.097	39.749	33.970	20.61				1.866		181.352
185.731	39.754	33.998	20.57				1.853		187.007
193.013	39.758	34.031	20.52				1.838		194.318
200.573	39.761	34.063	20.48	6 10.98	>> 3.□	821	1-824	2.177	201.907

MAC	H NO =	3.50	CONF ANG	LE = 6.0	O ANGLE	OF ATT	VUK =	5.00
		p /	P FREE-S	TREAM AT	PLANE	ANGLES		
L/RN	0.	30.	60.	90•		150 •	180.	S/RN
						4 075	4 006	4 1.44
.841	2.183	2.104	1.900	1.648	1.423	1.275	1.224	1.411 1.502
•931	1.844	1.774	1.595	1.375	1.183	1.056	1.013	1.551
•980	1.860	1.790	1.609	1.388	1.194	1.067 1.071	1.024	1.659
1.080	1.861	1.791	1.61.0	1.389	1.196	1.068	1.027	1.847
1.274	1.848	1.778	1.598	1.380	1.191 1.187	1.068	1.027	1.990
1.417	1.836	1.766	1.588	1372 1.363	1.182	1.067	1.028	2.150
1.576	1.820	1.751	1.574	1.353	1.175	1.065	1.028	2.327
1.751	1.798	1.730	1.556 1.523	1.324	1.150	1.059	1.025	2.626
2.049	1.759	1.692 1.661	1.495	1.303	1.146	1.052	1.021	2.850
2.272	1.726	1.530	1.467	1.281	1.133	1.045	1.017	3.094
2.514	1.695 1.655	1.590	1.428	1.250	1.115	1.036	1.012	3.499
2.917 3.213	1.631	1.566	1.405	1.230	1.102	1.031	1.010	3.796
3.530	1.510	1.546	1.384	1.211	1.087	1.025		4.115
3.870	1.513	1.528	1.366	1.195	1.073	1.017	1.004	4.457
4.423	1.573	1.507	1.343	1.174		1.005	•99?	5.013
4.820	1.563	1.496	1.331	1.162	1.046	• 999	• 992	5.413
5.242	1.557	1.489		1.153	1-040	• 995	•990	5.836
5.919	1.551	1.482	-	1.141	1.033	• 99 4	•990	6.518
6.402	1,550	1.48		1-135	1.029	• 994	• 992	7.003
6.309	1.551	1.479	1.301	1.131	1.026	-995	•995	7.513
7.442	1.534	1.480	1.299	1.128	1.025	• 997	• 998	8.048
6.288	1.559	1.484		1.125	1.024	1.000	1.003	8.900
8.886	1.564	1 • 487		1.124	1.0624	1.002	1.006	9.500
9.510	1.569	1.491		1.124	1.025	1.005	1.009	
10.496	1.577	1.498	-	1.125	1-028	1.010	1.015	
11.188	<b>1</b> :•583	1.503		1.126	1:030	1.014	1.019 1.023	
11.908	1.589	1.503		1.127	1:0032	1.018 1.022	1.025	_
12.656	1.595	1.512		1.129	1.034	1.027	1.033	
13.833	1-604	1.520		1.131	1 • 037 1 • 848	1.027	1.033	-
14.555	1.610	1.525			1.042			
15.506	1.615	1.529		1.134 1.136	1.044	1.037		
16.389	1=•620	1.534		1.139	1.047	1.042	1.049	18.435
17.772	1-627	1.540		1.141	1.049	1.044	1.952	19.403
18.734	1.631	1.543		1.142	1.051	1.047	1.054	
19.729	1:•635	1.547 1.552		1.145	1.053	1.050	1.057	
21.284	1.641	1.555		1.146	1.055	1.052	1.059	
22.364	1 • 644 1 • 647	1.558		1.148	1.056	1.053	1.061	
23.479 24.631	1.650	1.560		1.149	1-057	1.055	1.062	25.332
26.427	1 654	1.564		1.152	1.059	1.056	1.064	
27.671	1.656	1:566		1.153	1.060	1.057	1.065	
28.955	1.659	1.568		1.154	1.061	1.058	1.066	
30.955	1-651	1.571		1.156	1.063	1.059	1.067	
32.340	1.553	1.573		1.157	1.064	1.060	1.067	33.084

MACH	1 NO =	3.50	CONE	ANG	LE	=	6.00	ANGLE	0F	ATT	ACK	=	5.00
		5.4	<b>.</b>	\FE_C	TDE	A M	AT	PLANE	ANGL	ES			
	_		. P. P.	REE-S	וותב	90		120 •	150		1	80.	S/RN
L/RN	0 •	30•		60•		70	•	1200			_		
33.767	1.665	1.574	1.	353	1	.15	8	1.064	1.08			067	34.519
35.237	1.656	1.576		354		.16		1.065	1.06	51		068	35.996
37.525	1.669	1.578		.356	1	.16	1	1.066	1.00			068	38.297
39.107	1.670	1.579		• 357	1	1.16	52	1.067	1.00			068	
40.736	1.671	1.580		. 358	1	1.16	3	1.067	1.0			069	
43.271	1.673	1.582		.360	1	1.18	54	1.068	1.0			069	
45.023	1.673	1.583	1	.361	:	1.16	55	1.069	1.0			069	
46.826	1.674	1.584		.362	1	1.18	55	1.069	1.0			069	
48.682	1.675	1.584		.362		1.1	56	1.070	1.0			069	
51.568	1.676	1.586		. 364		1.10	57	1.070	1.0			069	
53.563	1.677	1.586		.364		1.16	58	1.071	1.0			069	
55.616	1.678	1.587		.365		1.1	58	1.071	1.0			069	56.488
58.808	1.678	1.588		.366		1.1	69	1.072	1.0			069	59.698
61.014	1.679	1.588		.367		1.1	69	1.072	1.0			069	61.916
63.285	1.679	1.589		.367		1.1	70	1.072	1.0			069	
65.623	1.680	1.589		.368		1.1	70	1.072	1.0			069	
69.260	1.680	1.590		.369		1.1	71	1.073	1.0			069	
71.774	1.680	1.590		369		1.1	71	1.073	1.0			069	
74.363	1.681	1.591		. 370		1.1	72	1.073		64	•	.069	
77.029	1.681	1.591		.370		1.1	72	1.074		164		.069	78.019
81.179	1.681	1.592		.371		1.1	72	1.074		164		.059	_
84.050	1.681	1.592		1.371		1.1	73	1.074		16.4		• 069	
87.008	1.681	1.592		1.372		1.1	73	1.074		164		.069	
91.614	1.681	1.593	-	1.372	<b>)</b>	1.1		1.075		164		.069	
94.801	1.681	1.593		1.373	3	1.1		1.075		165		.069	
98.086	1.681	1.59		1.373	3	1.1		1.075		165		.069	
101.471	1.681	1.59	5 . :	1.373	5	1.1		1.075		165	1	• 059	102.596
106.746	1.682	1.59	3	1.374		1.1		1.075		165			107.899
110.397	1.682	1.594	+	1.374	+	1.1		1.076		065			111.571
114.162	1.682	1.59		1.379		1.1		1.076		065			115.356
120.027	1.682	1.59		1.379			.74	1.076		065		000	121.254
124.090	1.682	1.59		1.376			175	1.076		065		. 00°	129.550
128.278	1.682	1.59		1.376		1.1		1.076		065			3 123.330
132.596	1.682	1.59		1.376			175	1.076		065		000	3 140 • 658
139.325	1.682	1.59		1.37			L75	1.077	1.0	065			145.345
143.986	1.582	1-59	5	1.37			175	1.077		065			3 150.178
148.792	1.682	1-59		1.37			175	1.077		065			
156.283	1.682	1.59		1.37			175	1.077		066			9 157.709 9 162.926
161.471	1.682	1.59	5-	1.37			175	1.077		0.56			9 168.306
166.821	1.682			1.37			175	1.077		066			9 173.852
172.337	1.582	1.59		1.37			175	1.077		065			9 182 497
180.935	1.682	1.59		1.37			175	1.078		066		1.05	
186.890	1.682	1.59		1.37			175	1.078		066			9 194.660
193.031	1.682	1.59		1.37			175	1.078		066			9 204.284
202.603	1.682		<u>.</u> 5	1. 37	9	1.	175	1.078	1.	066	)	1.00	5 607 6607

	-MACH	NO =	5.00	CON	E AN	GLE	=	6.0	0 0	ANGLE	OF	ATT	ACK	=	5.00
			D /	0 5	REE-	CTP1	TA M	ι Δ1	r	PLANE	ANGL	ES			
L/F	) N	0 "	30.	rr	60.	311(		0.	•	120.	150		10	80.	SZRN
L/F	X 14	Un	30 •				Ī								
.85	53	3.603	3.460	3	.094	:	2.6	46	2	2.253	1.99			910	1.424
.91		3.249	3.121	2	.791	i	2.3	90		2 • 04 0	1.8			735	1.517
1.0		3.161	3.035	2	.712			321		L.981	1.76			688	
1.1		3.023	2.899		•582			200		1.873	1.6			594	
1.3		2.954	2.833		• 523			.52		1.834	1.6			562	
1.5	95	2.833	2.717		• 421			171		1.775	1.5			526	
1.7		2.743	2.629		• 34.3			107		1.728	1.5			497 446	
2.1		2.598	2.490		. 217			304		1.649	1.4			440 411	
2.4	-	2.501	2.395		.129			332		1.595	1.3			359	
2 • 8		2.367	2.263		. 305			725		1.513	1.3			323	
3.1		2.286	2.184		.930			558		1.458 1.380	1.2			268	
3.7		2.186	2.083		831			568 =46		1.335	1.2			232	
4.1		2.132	2.028		.775 727			516 470		1.294	1.2			200	
4.5		2.088	1.983		•72.7 •669			411		1.242	1.1			159	
5.2		2.040	1.931		• 639 • 639			380		1.212	1.1			137	
5.7		2-018	1.906 1.882		• 60.5			341		1.175	1.1			108	
6.4		1.998	1.873		. 58.9			321		1.155	1.0			092	
7.0		1.993 1.994	1.868		. 572			298		1.132	1.0			072	
7.9		1.999	1.870		•566			286		1.119	1.0			062	
8.5 9.5		2.015	1.879		.561			273		1.105	1.0			051	
10.2		2.028	1.888		.561			257		1.098	1.0			046	1.0 - 856
11.3	-	2.052	1.906		. 566			262		1.090	1.0			042	
12.0		2.070	1.920		. 571			260		1.086	1.0	42	1.	041	12.723
13.2		2.099	1.943		. 581			259		1.082	1.0	41		042	
14.0		2.118	1.958		.588			260		1.081	1.0	41		043	
14.9		2.136	1.974		. 59.6		1.	261		1.080	1.0			046	
16.2		2.163	1.997		1.609		1.	264		1.079	1.0			050	
17.1		2.180	2.012		L • 61-8	3	1.	267		1.079	1.0			053	
18.5		2.204	2.033	;	1.632	2		271		1.080	1.0			:058	
19.4		2.219	2.046	) :	L • 64.0	)		274		1.081	1.0			062	
20.9		2.239	2.064		1.653		-	279		1.082	1.0		_	068	
21 • 9	75	2.251	2.075		1.661			283		1.083	1.0			.071	
23.5	33	2.267	2.090		1 • 672			288		1.085	1.0			:077	
24.6	01	2.277	2.100		1.679			292		1.086	1.0			-08( -08(	
26.2		2.290	2.112		1.689			297		1.088	1.0			-089 180	
27.3	558	2-298	2.120		1.696			300		1.089	1.0			380- 000	
29•0		2.308	2.130		1.704			305		1.691	1.0			.092 .095	
30.2		2.314	2.136		1.709			309		1.093		17:4 17:5		-097	
31.4		2.320	2.141		1.71			312		1.094		).7.7		1.0	•
33 • 3		2-328	2.149		1.72			316		1.097 1.098		79		10	
34=5		2332	2.15		1 • 72! 4 - 73:			319 323		1.100		80		104	·
36 • 5		2.338	2.16		1.73: 1.73!			325		1.100		181		.10	
37.8		2-342	2.164		1.74			329		1.102		183		-10	
39•9	) U C.	2 • 347	2.169	7	# 4 1 H	U	⋆•	JE		,			- '		

MACI	H NO =	5.00	CONE	ANGL	.E =	6.00	ANGLE	OF A	TTACK =	5.00
		P /	P F	REE-SI	REAM	AT	PLANE	ANGLE		
L/RN	0•	30•		60.		0•	120•	150.	180.	SZRN
41.294	2.349	2,172	1.	743	1.3	31	1-105	1.084		
43.436	2.353	2.176		747	1.3		1.108	1.085		44.240
44.900	2.355	2.179		750	1.3		1.109	1.086	1.111	45.713
47.155	2.358	2.182		753	1.3		1.111	1.087	1.112	47.981
48.700	2.359	2.184		755	1.3		1.112	1.088		49.534
51.082	2.361	2.187		759	1.3		1.114	1.089	1.113	51.929
	2.362	2.189		761	1.3		1.116	1.089	1.114	53.572
52.716	2.362	2.190		763	1.3		1-117	1.090	1.114	55.254
54.389	2.363	2.192		. 765	1.3		1.119	1.095		57.852
56.973	2.363	2.193		.767	1.3		1.120	1.091	1.115	59.637
58.748	2.364	2.195		.769	1.3		1.121	1.092	2 1.115	62.398
61.493		2.196		.771	1.3		1.122	1.092		64.295
63.381	2.364 2.364	2.197		.773	1.3		1.124	1.093		67.232
66.301		2.197		.775	1.3		1.125	1.09		69.251
68.309	2.364	2.198		.777	1.3		1.126	1.09		72.377
71.418	2.364	2.198		.779	1.3		1 - 127	1.09		74.527
73.556	2.364	2.199		.781	1.3		1.128	1.09		77.855
76.866	2.364	2.199		.782	1.3		1.128	1.09		80.145
79.144	2.364			.785		559	1.129	1.09		83.691
82.670	2.364	2.199		.786		59	1.130	1.09		86.130
85.096	2.364	2.199		.788		359.	1.131	1.89		
87.584	2.364	2.199		.790		360	1.131	1.09		
91.438	2.363	2.199		.791	1.3		1.132	1.69		
94.089	2.363	2.199		.794		361	1.133	1.09		99.302
98.196	2.362	2.199		.795		361	1133	1.09		102-144
101.022	2.362	2.199		• 797		361	1.134	1.09		106.545
165.399	2.362	2•199 2•199		798		362	1.134	1.10		109.574
108.411	2.362			. 799		362	1-135	1.10		114.264
1-13-076	2.361	2•199 2•199		.800		362	1.135	1.10		117.493
116.287	2.361			801		363:	1.136	1.10		122.493
121.259	2.361	2.199		L.802		363 363	1.136	1.10	_	125.934
124.681	2.361	2.199		1.802		364	1:136	1.10		131.263
129.982	2.361	2.199		1.803		364	1.137	1.10	_	134.931
133.630	2.362	2.198		L.803		<b>36</b> 5	1.137	1.19		138.694
137.372	2.362	2.198		1.803		366	1.137	1.10		144.522
143.167	2.362	2.198		1.803		366	1.138	1.10		148.532
147.156	2.362	2.198		1.003		368-	1.138	1.10		154.744
153.334	2.363	2.197		1.802		368-	1.138	1.10		159.019
157-586	2.363	2.197				370	1.139	1.10		165.640
164.170	2.364			1.802 1.802		371	1.139	1.10	_	170.197
168.702	2.364			1.801		372	1.139	1.10		177.255
175.721	2.364			1.801		373	1.139	1.10		182.112
180.552	2.365					37:4-	11-39	1.10		189.635
188.034	2.365			1.800 1.799		375	1.139	1.10	_	194.813
193.183	2.366		-	1•799 1•799	-	376	1.139	1.10		202.832
201.158	2.366	2.196	3	エ・ィフフ	Τ.	01:0	·			

MAC	: = 0N H	10.00	CONE ANGL	E = 6.00	) ANGLE	OF ATT	ACK =	5. <b>• 0</b> 0
		D /	D EDEE-01	REAM AT	PLANE	ANGLES		
1.401	0.	30•	60.	90•	120.	150 •	180.	S/RN
L/RN	₩.	30 •	004	,				
.862	11.946	11.435	10.132	8.556	7.191	6.312	5.013	1.432
1.001	10.505	10.053	8 • 90.1	7.517	6.331	5.572	5.316	1.572
1.129	10.031	9.592	8.477	7.145	6.011	5.292	5.050	1.701
1.352	9.431	9.017	7 - 96 8	6,724	5.673	5.008	4.786	1.925
1.710	8.575	8.196	7.243	6.135		4.651	4.463	2.285
2,036	7.901	7.546	6.663	5.654	4.840	4.351	4.191	2.613
2.408	7.241	6.908	6.085	5.177	4.470	4.059	3.929	2.987
2.826	6.644	6.325	5.551	4.722		3.767	3.665	3.408
3.456	5.958	5.656	4.931	4.180	3.645	3.380	3.311	4.040 4.568
3.980	5.541	5.242	4.534	3.825	3.340	3.116	3.063	5.139
4.548	5.201	4.902	4.201	3.517	3.070	2.881	2.842	
5.368	4.854	4.548	3.845		2.762	2.606		6.624
6.025	4.661	4.347	3.634	2.974	2.570	2•427 2•272		
6.715	4.517	4.192	3.463	2.802	2.407	2.139		8.042
7.435	4.413	4.075	3.325	2.660	2.270	1.993	1.979	
8.436	4.328	3.968	3.184	2.506	2.118 2.023	1.901	1.887	9.830
9.213	4.297	3.918	3-104	2.413	1.943	1.821	1.808	10.632
10.011	4.291	3.891	3.043	2.334 2.250	1.853	1.732	1.719	and the second second
11.103	4.316	3.885	2.984	2.198	1.795	1.676	4.662	12.574
11.942	4.356	3.900	2-956		1.745	1.627	1.614	
12.797	4.412	3.929	2.939 2.932	2.119	1.702	1.584	1.572	14.307
13.666	4.481	3.970	2.935	2.081	1.651	1.536	1.524	
14.847	4.591	4.043 4.108		2.058	1.619	1.504	1.494	16.402
15.749	4.686	4.181		2.040	1.590	1.477	1.468	17.323
16.665	4.787				1.555	1.44	1.438	
17.907	4.933, 5.047	-	-	2.012	1.533	1.423	1.419	19.525
18.855	5.163		-	2.006	1.512	1.405	1.403	
19.816 20.790	5.279		The second secon		1.494	1.388	1.388	
22.109	5.433			2.001	1.472	1.368	1.372	
23.113	5.544				1.457	1.355	1.362	
24.130	5.651			2.007	1.443	1.343	1.353	
25.159	5.752	4.963	_	2.013	1.431		1-346	25.863
26.551	5.877			2.023	1.415	1.319	1.338	
27.610	5.964			2.033	1.405	1.309	1.332	
28.684	6.044		3.478	2.044	1.396	1.301	1.328	
30.143	6.140		3.547	2.061	1.385	1.291	1.324	
31.261	6.203		3.597	2.076	1.377	1.283	1.321	
32.403	6.260	5.463	3.647	2.092	1.371	1.276	1.319	
33.575	6.308				1.365	1.269	1.316	
35.191	6.358				1.358	1.261 1.254	1.315	T
36.452	6.383			2.153	1.354	1.294	1.319	
37.760	6.398				1.351 1.349	1.240	1.314	
39.588					1.349	1.235	1.314	
41.029	6.391	5.759	3 935	£ 4 £ £ 5	14040		= - <del></del>	

MA	CH NO =	10.00	CONE AND	SLE = 6	.00 ANGL	E OF AT	FACK =	5.00
1.404	•		P FREE-S			ANGLES		
L/RN	0 •	30.	60.	90•	120.	150.	180.	S/RN
42.538	6.376	5.770	3,972	2,247	1349	1.229	1.314	43.337
	6.360	5.774	3.972 4.006	2.270			1.314	
46.250	6.342	5.768	4.050	2.300		1.217	1.313	
47.907	6.331	5.755	4.080	2.321		1.213	1.312	
49.608		5.740		2.341		1.208	1.311	50.447
51.949		5.720			1.367	1.203	1.310	
53.762	6.305	5.706	4.172	2.383	1.373	1.200	1.308	
55.627		5.693				1.197	1.307	
51.547		5.682						
60.194	6.281	5.669	4.238	2.431		1.192		
62.248	6.274	5.661	4.250				1.302	
64.363	6.267	5 344					1.301	
67.279	6.260		4.263	2.465				
69.540	6.256	5.639	4.264	2.474	1.431			-
71.866	6.253	5.671	1. 261.	2 4.92	1-438	1.188	1.294	
74.259	6.250	5.629	4.262	2.491	1.446	1.188		
77.557	6.249	5.622	4.257	2.503		1.189	1.289	
80.114	6.248	5.629 5.622 5.618 5.615 5.612	4.253	2.513		1.189	1.287	
82.743	6.248	5.615	4.248	2.524		1.190	1.286	
85.448	6.247	5.612	4.242	2.536		1.191	1.284	86.485
09.1/6	6.247	5.610	-4.233	2.552	1.486	1.193	1 - 281	90.233
92.065	6.247	5.608	4 • 225	2.565	1.492	1.195	1.280	93.138
95.037	6.247	5.607	4.218	2.577	1.498	1.197	1.278	
99.133	6.248	5.606	4.207	2.594		1.199		100.244
102.307	6.249	5.605	4.199	2.606	1.510	1.201		103.436
105.572		5.605		2.617	1.514	1.203		106.719
108.930 113.557		5.604		2.627	1.517	1.205		110.095
117.143		5.604		2.640	1.521	1.208		114.748
120.832		5.604						118.354
125.915	6.263	5.604	4.146	2.655				122.063
129.855	6.265		4.138				-	127.174
133.908	6.268	5.606	4.131					131.136
138.078	6.270	5.607				1.218		135.211
143.824	6.274	5.609	4.116	2.677 2.681	1.532 1.533	1.220		139.404
148.279	6.276	5.610	4.109	2.683		1.222		145.182
152.862	6.279	5.611	4.103	2.684	1.534 1.535	1.224		149.652
159.180	6.282	5.613	4.096	2.585	1-537	1.226 1.228		154.270
164.078	6.284	5.615	4.091	2.685	1.539	1.229		160.622 165.547
169.117	6.286	5.616	4.086	2.685	1.541	1.231		170.615
174.303	6.288	5.618	4.081	2.684	1.543	1.232		175.829
181.452	6.291	5.620	4.075	2.682	1.545	1.234		183.018
186.997	6.292	5.62i	4.071	2.681	1.548	1.235		188.592
192.702	6.294	5.623	4.068	2.679	1.550	1.237		194.329
200.569	6.295	5.625	4.063	2.676	1-554	1.238		202.239
	-			- · <del>-</del>				

MACH NO = 15.00 CONE ANGLE	= 6.00	ANGLE OF ATTACK =	5.00
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		P /	P FPEE-S	TREAM A	T PLANE	ANGLES		
L/RN	0•	30 •	60.	90•	120.	150 •	180.	SZRN
						· =		
-864	25.854	24.731	21.870	18.418	15.437	13.519	12.870	1.434
1.000	22.748	21.755	19.224	16.192	13.598	11.942	11.384	1.571
1.195	21.206	20.265	17.873	15.027	12.614	11.088	10.577	1.767
1.512	19.315	18.454	16.283	13.736	11.607	10.275	9.829	2.086
1.907	17.278	16.497	14.549	12.314	10.496	9.392	9.029	2.483
2.381	15.279	14.568	12.814	10.881	9.377	8.502	8.225	2.960
2.933	13.499	12.840	11.241	9.540	8.287	7.621	7.424	3.514
3.562	12.002	11.377	9.888	8.365	7.292	6.770	6.636	4.147
4.265	10.815	10.203	8.770	7.363	6.432	6.024	5.935	4.854
5.035	9.906	9.292	7.881	6.542	5.700	5.379	5.328	5.628
5.864	9.228	8.601	7.186	5.885	5.097	4.824	4.794	6.461
6.742	8.736	8.086	6.648	5.363	4.609	4.361	4.338	7.345
7.661	8.391	7.711	6.232	4.948	4.214	3.981	3.960	8.269
8.613	8.164	7.444	5.911	4.616	3.892	3.669	3.649	9.226
9.590	8.033	7.266	5.665	4.349	3.629	3.41.1	3.390	10.208
10.586	7.981	7.160	5.479	4.132	3.412	3-196	3.173	11.210
11.596	7.994	7.113	5.339	3.954	3.230	3.016	2.992	12.225
12.615	8.063	7.115	5.239	3.808	3.077	2.866	2.840	13.250
13.384	8.145	7.144	5.185	3.715	2.977	2.768	2.742	14.023
14.412	8.291	7.215	5.138	3.610	2.860	2.654	2.630	15.057
15.440	8.473	7.317	5.113	3.522	2.759	2.556	2.534	16.091
16.467	8.689	7.446	5.109	3.450	2.670	2.471	2.451	17.123
17.489	8.936	7.601	5.122	3.389	2,593	2.397	2.379	18.151
18.506	9.210	7.779	5.151	3.340	2.524	2.331	2.316	19.173
19.515	9.508	7.978	5.193	3.299	2.462	2.273	2.252	20.188
20.516	9.825	8.195	5.246	3.266	2.408	2.221	2.213	21.195
21.508	10.154	8.428	5.311	3.240	2.358	2.175	2.171	22.192
22.491	10.490	8.673	5.385	3.220	2.313	2.134	2.133	23.180
23.464	10.828	8.927	5.469	3.205	2.27-2	2.096	2.100	24.159
24.429	11.160	9.187	5.560	3.195	2.235	2.062	2.070	25.130
25.387	11.484	9.449	5.658	3.189	2.201	2.031	2.043	26.093
26.339	11.793	9.711	5.762	3.187	2.159	2.002	2.020	27.050
27.287	12.086	9.969	5.872	3.188	2.139	1.976	1.999	28-003
28.234	12.359	10.222	5.987	3.193	2.112	1.952	1.980	28.955
29.183	12.608	10.467	6.107	3.200	2.086	1.929	1.963	29.909
30.137	12.831	10.703	6.230	3.211	2.061	1.907	1.947	30.869
30.859	12.979	10.874	6.325	3.220	2.044	1.891	1.937	31.595
31.833	13.147	11.091	6.455	3.236	2.021	1.871	1.924	32.574
32.826	13.279	11.294	6.587	3.254	2.000	1.852	1.912	33.573
33.842	13.371	11.480	6.721	3.275	1.980	1.833	1.901	34.594
34.888	13.421	11.647	6.857	3.299	1-960	1.815	1.891	35.646
35.968	13.430	11.789	6.994	3.326	1.942	1.796	1.882	36.732
37.090	13.400	11.903	7.133	3.357	1.924	1.778	1.873	37.860
38.260	13.341	11.982	7.271	3.390	1.907	1. • 760	1.865	39.037
39.486	13.263	12.023	7.409	3.428	1.891	1.741	1.858	40.269
0 7 8 TUU	704 500	~~~		O + 74.0	34071	****	# # O > O	404507

MACH NO = 15.00 CONE ANGLE = 6.00 ANGLE OF ATTACK = 5.00 P / P FREE-STREAM AT PLANE ANGLES L/RN 90. 0. S/RN 30. 60. 120. 150 • 180. 40.764 13.176 12.724 7.545 3.469 1.877 1.722 1.851 41.554 13.090 7.678 3.513 42.096 11.989 1.864 1.703 1.844 42.894 43.492 13.008 11.924 7.808 3.560 1.852 1.837 1.684 44.297 44.961 12.936 11.837 7.935 1.842 45.774 3.610 1.665 1.830 8.057 46.513 12.874 11. 738 3.664 1.833 1.645 1.822 47.335 12.825 8.170 48.160 11-634 3.720 1.827 1.625 1.815 48.991 49.914 12.786 11.533 8.272 3.780 1.822 1.505 1.807 50.754 8.355 12.755 11.440 3.841 1.820 51.788 1.584 1.798 52.639 8.414 53,797 12.732 11.360 3.903 1.820 1.564 1.788 54.659 1.822 1.550 55.401 12.718 11.311 8.439 3.951 1.780 56.271 12.705 8.447 57.658 11.260 4.013 1.828 1.530 1.769 58.541 8.431 59.998 12.699 11.226 4.075 1.835 1.512 1.756 60.894 62.419 11.203 8.399 4.134 12.698 1.845 1.495 1.742 63.328 64.921 12.700 11.190 8.357 4.193 1.857 1.728 1.480 65.844 57.507 12.703 11.184 8.311 4.251 1.872 1.466 1.714 68.444 12.705 8.265 70.178 11,183 4.310 1.888 1.454 1.699 71.130 11.185 72.937 12.706 8.219 4.369 1.907 1.443 1.685 73.905 75.788 12.705 11.190 8.175 4.428 1.927 1.671 1.434 76.771 4.485 78.733 12.703 11.197 8.133 1.949 1.426 1.658 79.733 12.701 11.204 8.093 4.538 81.776 1.971 1.419 1.644 82-792 84.921 12.699 11.212 8.055 4.587 1.994 1.413 1.631 85.954 88.170 12,699 11.219 8.019 4.631 2.017 1.408 1.617 89.221 12.700 7.986 91.527 11.225 4.668 2.040 1.404 1.605 92.597 94.998 7.954 4.699 12.702 11.229 2.061 1.400 1.593 96.087 98.585 12.705 11.232 7.926 4.725 2.082 1.397 1.581 99.694 102.293 12.710 11.233 7.900 4.744 2.101 1.395 1.570 103.422 11.234 4.759 1.394 106.126 12.715 7.876 1.560 107.276 2.119 11.235 7.859 4.768 109.086 12.719 2.132 1.393 1.552 110.252 113.148 12.726 11.236 7.838 4.776 2.147 1.393 1.542 114.337 117.347 12.734 11.236 7.81.8 4.780 2.161 1.393 1.533 118.559 121.688 12.742 11.237 7.799 4.782 2.174 1.393 1.524 122.924 12.750 126.175 11.239 7.781 4.781 2.185 1.394 1.516 127.436 130.814 12.758 11.240 7.764 4.778 2.196 1.396 1.508 132.101 135.611 12.765 11.242 7.749 4.773 2.207 1.398 1.501 136.923 140.569 12.772 11.245 7.735 4.765 2.217 1.400 1.494 141.909 145.697 12.779 11.248 7,721 4.757 2.227 1.403 1.488 147.065 150.998 12.785 11.251 7.709 4.748 2.237 1.407 1.482 152.396 12.790 11.255 7.699 4.736 156.481 2.247 1.410 1.476 157.909 162.151 12.795 11.259 7.689 4.725 2.258 1.414 1.471 163.610 12.799 11.264 7.681 168.016 4.712 2-268 1.419 1.467 169.507 174.083 12.802 11.268 7.673 4.699 2.277 1.423 1.463 175.607 12.805 7.667 180,359 11.272 4.685 2.286 1.427 1.459 181.918 12.806 11.276 7.662 186.852 4.671 2.295 1.432 1.456 188.446 12.808 11.280 7.659 193.569 4.657 2.304 1.436 1.453 195.201 200.520 12.808 11.284 7.656 4.643 2.312 1.440 1.450 202.190

MACH NO = 20.00 CONE ANGLE = 6.00 ANGLE OF ATTACK = 5.00

		P /	P FREE-S	TREAM A	T PLANE	ANGLES		
L/RN	0.	30.	60.	30.	120.	150.	180.	S/RN
.864	45.328	43.348	38.303	32.225	26.982	23.612	22.472	1.435
1.058	38.871	37.151	32.775	27.554	23.109	20.285	19.337	1.630
1.266	36.311	34.690	30.579	25.702	21.578	18.975	18.104	1.839
1.695	31-936	30.498	26.893	22.709	19.257	17.125	16.417	2.270
2.126	28.282	26.999	23.778	20.139	17.237	15.509	14.953	2.703
2.633	24.909	23.711	20.797	17.655	15.280	13.952	13.541	3.214
3.375	21.309	20.219	17.610	14.912	12.982	12.022	11.766	3.960
4.051	19.038	17.984	15.504	13.050	11.400	10.652	10.480	4.639
4.989	16.898	15.850	13.447	11.168	9.739	9.196	9.110	5.582
5.803	15.651	14.586	12.190	9.992	8.664	8.289	8.162	6.401
6.664	14.729	13.632	11.209	9.052	7.792	7.383	7349	7.266
7.791	1-3 • 932	12.774	10.282	8.139	6.928	6 • 555	6.525	8.400
8.724	13.518	12.296	9.721	7.569	6.379	6.021	5 <b>.9</b> 92	9.338
9.917	13.217	11.899	9.189	7.003	5.827	5.478	5.447	10.537
10.884	13.117	11.798	8.871	6.642	5.469	5.124	5.088	11.510
11.859	13.117	11.609	8.626	6.342	5.167	4.826	4.787	12.490
13.080	13.234	11.589	8.404	6.036	4.853	4.517	4:• 477	13.718
14.055	13.405	11.542	8.280	5.835	4.640	4.311	4.271	14.698
15.265	13.704	11.778	8.179	5.628	4.414	4.091	4.054	15.915
16.223	14.007	11.937	8.135	5.490	4.258	3.940	3.906	16.878
17.169	14.363	12.136	8.117	5.373	4.121	3.808	3,777	17.830
18.333	14.880	12.438	8.127	5.250	3.971	3.665	3.638	18.999
19.246	15.345	12.721	8.157	5.169	3.866	3.565	3-542	19.918
20.365	15.982	13.120	8,221	5.083	3.749	3.455	3.436	21.343
21.241	16.526	13.472	8.290	5.027	3.666	3.376	3.363	21.924
22.101	17.094	13.850	8.373	4.980	3.590	3.306	3-297	22.788
23.153	17.822	14.353	8.495	4.932	3.504	3.227	3-224	23.846
23.977	18.411	14.773	8.606	4.901	3.442	3.170	3.172	24.674
24.987	19.142	15.317	8.761	4.872	3.371	3.106	3.115	2 <b>5.</b> 690
25.782	19.714	15.760	8.895	4.854	3.319	3.059	3:074	26.489
26.565	20.268	16.208	9.039	4.841	3.270	3.016	3.037	27.277
27.533	20.924	16.769	9.230	4.830	3.213	2.966	2.995	28.250
28.300	21.413	17.214	9.392	4.826	3.171	2.928	2.964	29.922
29.064	21.864	17.654	9.561	4.826	3.131	2.893	2.936	29.790
30.018	22.366	18.190	9.784	4.830	3.083	2.852	2.904	30.749
30.784	22.710	18.606	9.970	4.836	3.046	2.820	2.880	31.519
31.750	23.061	19.102	10.212	4.849	3.003	2.782	2.853	32.490
3-2.533	23.271	19.476	10.414	4.862	2.969	2.753	2.832	33.277
33.328	23.414	19.825	10.624	4.878	2.936	2.725	2.813	34.078
34.347	23.497	20.217	10.896	4.903	2.896	2.690	2.790	35.102
35.186	23.491	26.488	11.121	4.926	2.865	2.662	2.773	35.945
36.271	23.401	20.761	11.413	4.960	2.826	2.627	2.752	37.336
37.173	23.274	20.917	11.654	4.991.	2.796	2.600	2.737	37.944
38.109	23.111	21.011	11.902	5.026	2.766	2.572	2.722	3 <b>8.</b> 885
39.317	22.878	21.039	12.216	5.074	2.730	2.536	2.704	40.099

MA	CH NO =	20.00	CONE	ANGL	E =	6.00	A	NGLE	0F	ATTA	ACK =	5.00
	_		P FRE				PLA		ANGL			
L/RN	0 •	30-	•	50.	90	•	120	•	150	•	180	• S/RN
40.317	22.682	20.990	12.4	+70	5.11	7	2.70	1 2	2.50	8	2.69	1 41.105
41.619	22.440	20.852	12.7		5.17		2.66		2.47		2.67	
42.710	22.262	20.687		-	5.23		2.64		2.44		2.66	
43.850	22.105	20.486	13.2		5.28		2.61		2.41		2.64	
45.357	21.944		13.		5.36		2.58		2.37		2.63	
46.637	21.846	19.960	13.8		5.43		2.56		2.33		2.61	
48.344	21.760	19.665	14.1	198	5.53	6	2.54		2.29		2.60	2 49.176
49.808	21.717	19.448	14.2		5.62	1	2.52	23 2	2.25	9	2.58	8 50.648
51.370	21.693	19.259	14.3	390	5.71	3	2.50	8 2	2.22	23	2.57	2 52.218
53.447	21.684	19.073	14.4	465	5.83	7	2.49	3 2	2.17	7	2.55	1 54.387
55.193	21.689	18.969	14.4	463	5.94	2	2.48		2.14		2.53	2 <b>56.</b> º62
57.499	21.703	18.889	14.		6.08		2.47		2.09		2.50	
59.46.0	21.717	18.860	14.		6.20		2.47		2.06		2.48	
61.543	21.733	18.854	14.5		6.32		2.48		2.02		2.45	
64.345	21.753	18.870	13.9		6.50		2.49		1.98		2.42	
66.746	21.766	18.894	13.		6.65		2.50		1.95		2.39	
69.223	21.775	18.924	13.		6.80		2.52		1.92		2.36	
72.425	21.774	18.965	13.		6.98		2.54		1.89		2.33	
75.075	21.766	18.999	13.4		7.12		2.57		1.87		2.30	
78.504	21.752	19.040	13.		7.27		2.60		1.85		2.26	
81.342	21.740	19.071			7.38	4	2.63		1.83		2.23	
84.271	21.732	19.095			7.47		2.66		1.81		2.20	
88.061 91.202	21.726		13.		7.55		2.74		1.79 1.78		2.17 2.14	
95.269	21.726 21.731				7.64		2.78		1.77		2.11	
98.639	21.738				7.66		2.82		1.76		2.08	
102.117	21.748				7.67		2.85		1.75			4 103.245
106.620	21.763				7.68		2.90		1.74			5 107.773
110.352	21.77-8				7.68		2.93		1.73			3 111.525
115.182	21.797	19.106			7,67		2.98		1.72			6 116.382
119.184	21.813	19.103		-	7.66		3.01		1.71			6 120.406
123.312	21.829	19.100	12.		7.64		3.04		1.71		1.94	
128.657	21.846	19.099	12.		7.62		3.08		1.70			4 129.932
133.086	21.859	19.100		_	7.59		3.10		1.70		1.90	6 134.385
138.820	21.87:2	19.105	12.	7.30	7.55	8	3.14		1.70		1.88	6 140.151
143.573	21.881	19.110	12.	714	7.52	8	3.16	57 :	1.70	2	1.87	0 144,930
148.478	21.888	19.117	12.0		7.49	7	3.19	30 :	1.70	12	1.85	5 149.862
154.832	21.896	19.127	12.	-	7.45		3.21		1.70			8 156.250
160.100	21.901	19.135	12.		7.42		3.23		1.7.0			5 161.547
166.925	21.905	19.146	12.	-	7.39		3.25		1 .7 (			0 168.410
172.586	21.907	19.154	12.		7.36		3.27		1.70			8 174.102
178.431	21.909	19.162	12.		7.33		3.29		1.71			7 179.980
186.008	21.910	19.172	12.1		7.30		3.31		1.71			5 187.598
192.293	21.910	19.178			7.27		3.32		1.72			6 193.917
200.440	21.909	19.185	12.	<b>b34</b>	7.24	1	3.34	+6 .	1.72	27	1.75	5 202.109

L/RN 0. 30. 60. 90. 120. 150. 150. S/RN  .864 70.370 67.282 59.435 49.977 41.826 36.604 34.822 1.435 1.058 60.337 57.661 50.854 42.734 35.823 31.438 29.962 1.629 1.341 55.010 52.547 46.314 38.946 32.735 28.823 27.513 1.914 1.793 48.026 40.849 40.415 34.142 29.006 25.8555 24.813 2.368 2.241 42.370 40.421 35.565 30.143 25.871 23.348 22.543 2.819 2.908 36.072 34.303 30.017 25.454 22.092 20.299 19.767 3.490 2.908 36.072 34.303 30.017 25.454 22.092 20.299 19.767 3.490 3.692 30.952 29.306 25.405 21.463 18.720 17.407 17.076 3.490 4.397 27.787 26.179 22.436 18.798 16.429 15.425 15.218 4.987 5.365 24.837 23.223 19.562 16.151 14.055 13.310 13.218 5.960 6.411 22.771 21.112 17.436 14.143 12.208 11.579 11.529 7.011 7.291 21.605 19.855 16.148 12.896 11.039 10.463 10.421 7.096 8.431 20.613 18.786 14.922 11.677 9.77 9.340 9.301 9.43 9.601 20.020 18.057 14.014 10.737 8.969 8.448 8.407 10.229 10.789 19.736 17.611 13.344 10.002 8.249 7.736 7.666 11.414 11.746 19.684 17.414 12.940 9.526 7.774 7.268 7.212 12.376 12.941 19.794 17.325 12.562 9.038 7.279 6.783 6.724 13.576 14.128 20.062 17.375 12.298 8.643 6.869 6.383 6.325 14.772 15.068 20.378 17.498 12.151 8.381 6.589 6.111 6.055 15.717 16.226 20.990 17.741 12.032 8.106 6.288 5.819 5.768 16.881 17.361 21.530 18.076 11.973 7.878 6.030 5.571 5.524 18.925 19.333 22.979 18.897 11.989 7.562 5.651 5.209 5.173 20.006 22.120 25.613 20.651 12.258 7.239 5.212 4.798 4.782 22.995 22.120 25.613 20.651 12.258 7.239 5.212 4.798 4.782 22.995 22.120 25.613 20.651 12.258 7.239 5.212 4.798 4.782 22.995 22.1411 24.950 20.099 12.155 7.314 5.323 4.901 4.878 22.995 22.1412 24.950 20.099 12.155 7.314 5.323 4.901 4.878 22.995 22.1412 24.950 20.099 12.155 7.314 5.323 4.901 4.878 22.995 22.149 25.66 12.589 7.096 4.974 4.580 4.580 24.821 24.859 28.969 22.813 12.748 7.054 4.891 4.994 4.194 3.203 22.995 23.179 26.874 26.033 13.673 6.992 4.4564 4.217 4.263 28.915 23.1404 35.761 29.168 14.819 6.994 4.250 3.994 4.019 33.697 33.852 36.562 31.700 16.261 7.001 4.088 3.806 3.895 3.983 34.584 32.950 36.643 32.033 16.597	М	ACH NO =	25.00	CONE ANG	SLE = 6	.00 ANGI	LE OF AT	TACK =	5.00
L/RN 0. 30. 60. 90. 120. 150. 180. S/RN  .864 70.370 67.282 59.435 49.977 1.058 60.337 57.661 50.854 42.734 1.341 55.010 52.547 46.314 38.946 32.375 28.823 27.513 1.914 1.793 48.026 45.849 40.415 34.142 29.006 25.855 24.813 2.368 2.241 42.370 40.421 35.565 30.143 25.871 23.348 22.543 2.368 2.241 42.370 40.421 35.565 30.143 25.871 23.348 22.543 2.368 2.908 36.072 34.303 30.017 25.454 22.092 20.299 19.767 3.490 3.692 30.992 29.306 25.405 21.463 18.720 17.407 17.079 4.278 4.397 27.787 26.179 22.436 18.798 16.429 15.425 15.216 4.987 5.365 24.837 23.223 19.562 16.151 14.055 13.310 13.218 5.960 6.411 22.771 21.112 17.435 14.143 12.208 11.579 11.529 7.011 7.291 21.605 19.885 16.148 12.886 11.039 10.463 10.421 7.896 8.431 20.613 18.786 14.922 11.677 9.777 9.340 9.301 9.043 9.601 20.020 18.057 14.014 10.737 8.969 8.448 8.407 10.220 10.789 19.736 17.611 13.344 10.002 8.249 7.736 7.686 11.414 11.746 19.664 17.414 12.940 9.526 7.774 7.268 7.242 12.376 12.941 19.794 17.325 12.552 9.088 7.279 6.783 6.724 13.578 14.128 20.062 17.375 12.298 8.643 6.869 6.383 6.325 14.772 15.068 20.378 17.498 12.151 8.381 6.869 6.111 6.055 15.717 16.226 20.890 17.741 12.032 8.105 6.288 5.819 5.768 16.881 17.361 21.530 18.076 11.973 7.878 6.030 5.571 5.524 18.022 10.387 22.129 18.408 11.962 7.724 5.850 5.995 5.763 16.881 17.361 21.530 18.076 11.973 7.878 6.030 5.571 5.524 18.022 12.376 12.525 7.426 5.477 5.045 5.015 5.015 19.333 22.979 18.897 11.989 7.562 5.651 5.209 5.173 20.006 22.208 25.813 20.651 12.258 7.299 5.212 4.798 4.792 22.896 27.377 32.000 25.476 13.405 6.999 4.404 4.580 4.590 4.792 22.896 27.373 32.000 25.476 13.405 6.999 4.404 4.500 4.500 2.896 27.431 32.945 22.813 12.748 7.054 4.891 4.505 4.513 2.4967 32.4122 28.061 22.4166 12.589 7.096 4.974 4.580 4.590 2.896 33.473 33.853 26.841 13.958 6.991 4.796 4.420 4.437 26.486 36.463 33.171 24.491 13.203 6.997 4.708 4.342 4.359 27.355 28.1441 32.949 15.189 6.991 4.479 4.450 4.211 29.767 24.122 28.061 22.166 12.589 7.096 4.974 4.580 4.590 3.993 34.584 32.958 36.463 32.864 13.958 6.991 4.708			D /	D EDEE-G	STDEAM A	T DIANE	ANGLES		
.864         70.370         67.282         59.435         49.977         41.826         36.604         34.829         1.435           1.058         60.337         57.661         50.854         42.773         35.823         31.438         29.962         1.629           1.341         55.010         52.547         46.314         38.946         32.735         28.823         27.513         1.914           1.793         48.026         45.849         40.415         34.142         29.006         25.855         26.813         2.868           2.241         42.370         40.421         35.565         30.143         25.871         23.348         22.543         2.819           2.908         36.072         34.303         30.017         25.454         22.092         20.299         19.767         3.490           3.692         30.3092         29.306         25.405         21.463         18.720         17.407         17.077         4.278           4.397         27.677         26.179         22.436         18.798         16.429         15.425         15.216         4.987           5.365         24.837         23.223         19.562         16.151         14.055         13.310	1 /04	n							C /DN
1.058	LYKI	<b>0</b> •	-30 ●	50 €	90.	120•	150 +	TOU.	SZKN
1.058	.864	70.370	67.282	59.435	49.977	41.826	36.604	34.829	1.435
1.341 55.010 52.547 46.314 38.946 32.735 28.823 27.513 1.914 1.793 48.026 45.849 40.415 34.142 29.006 25.855 24.813 2.368 2.241 42.370 40.421 35.565 30.143 25.871 23.348 22.543 2.819 2.908 36.072 34.303 30.017 25.454 22.002 20.299 19.767 3.490 3.692 30.952 29.306 25.405 21.463 18.720 17.407 17.079 4.278 4.397 27.787 26.179 22.436 18.798 16.429 15.425 15.218 4.987 5.365 24.837 23.223 19.562 16.151 14.055 13.310 13.218 5.960 6.411 22.771 21.112 17.436 14.143 12.208 11.579 11.529 7.011 7.291 21.605 19.885 16.148 12.896 11.039 10.463 10.421 7.896 8.431 20.613 18.786 14.922 11.677 9.877 9.340 9.501 9.601 20.020 18.057 14.014 10.737 8.969 8.448 8.407 10.220 10.789 19.736 17.611 13.344 10.002 8.249 7.736 7.686 11.414 11.746 19.684 17.414 12.940 9.526 7.774 7.288 7.212 12.336 14.128 20.062 17.375 12.298 8.643 6.869 6.383 6.325 14.772 15.068 20.378 17.498 12.151 8.381 6.589 6.111 6.055 15.717 16.226 20.890 17.741 12.032 8.106 6.288 5.619 5.768 16.881 17.361 21.530 18.076 11.973 7.878 6.289 6.111 6.055 15.717 16.226 20.890 17.741 12.032 8.106 6.288 5.619 5.768 16.881 17.361 21.530 18.076 11.989 7.562 5.651 5.299 5.173 20.006 20.387 23.925 19.464 12.055 7.426 5.477 5.045 5.015 11.039 22.208 25.813 20.651 12.258 7.229 5.651 5.209 5.173 20.006 23.179 26.927 21.387 12.411 7.160 5.087 4.683 4.674 23.872 24.122 28.061 22.166 12.589 7.096 4.974 4.860 4.342 4.369 27.355 24.859 28.969 22.813 12.748 7.054 4.891 4.505 4.513 25.562 25.761 30.88 23.644 12.966 7.012 4.796 4.420 4.437 26.482 24.859 28.969 22.813 12.748 7.054 4.891 4.505 4.513 25.562 25.761 30.88 23.644 13.968 6.931 4.944 4.504 4.211 29.767 29.716 34.501 27.555 14.197 6.927 4.333 4.050 4.199 33.863 36.463 33.078 15.481 15.480 6.956 4.217 4.263 38.915 31.404 35.761 29.168 14.841 6.933 4.311 3.996 4.087 33.1293 31.404 35.761 29.168 14.841 6.933 4.311 3.996 4.087 33.0446 32.950 36.412 33.662 31.132 15.860 6.976 4.145 3.887 3.993 34.584 34.737 36.562 31.700 15.261 7.001 4.888 360 3.950 35.943 34.584 34.737 36.562 31.700 16.261 7.001 4.888 360 3.950 3.964 33.013									
1.793       48.026       45.849       40.415       34.142       29.006       25.855       24.813       2.819         2.908       36.072       34.303       30.017       25.454       22.022       20.299       19.767       3.490         3.692       30.952       29.306       25.405       21.463       18.720       17.407       17.077       4.278         4.397       27.787       26.179       22.436       18.786       16.429       15.425       15.218       4.987         5.365       24.837       23.223       19.562       16.151       14.055       13.310       13.216       5.960         6.411       22.771       21.112       17.436       14.143       12.208       11.579       11.529       7.011         7.291       21.605       19.885       16.148       12.896       11.039       10.463       10.421       7.896         8.431       20.613       18.786       14.922       11.677       9.877       9.340       9.301       9.043         9.6783       19.736       17.611       13.344       10.002       8.249       7.774       7.268       7.421       12.376         10.789       19.752       28.061       <									
2.241         42.370         40.421         35.565         30.143         25.871         23.348         22.543         2.819           3.692         30.952         29.306         25.445         18.720         17.407         17.079         4.278           4.397         27.787         26.179         22.436         18.798         16.429         15.425         15.218         5.960           6.411         22.771         21.112         17.435         14.143         12.208         11.579         11.529         7.011           7.291         21.605         19.885         16.148         12.896         11.039         10.463         10.421         7.896           9.601         20.020         18.057         14.014         10.737         8.969         8.448         8.407         10.220           10.789         19.736         17.611         13.344         10.002         8.249         7.736         7.686         11.414         12.941         19.794         17.325         12.562         9.038         7.279         6.783         6.724         13.578           14.128         20.062         17.375         12.298         8.643         6.869         6.383         6.325         14.722 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
2.9088         36.072         34.303         30.017         25.495         22.092         20.299         19.767         3.490           3.692         20.952         29.306         25.405         21.463         18.770         17.407         17.079         4.278           4.397         27.787         26.179         22.436         18.798         16.429         15.425         15.218         4.987           5.365         24.837         23.223         19.562         16.151         14.055         13.310         13.218         5.960           6.411         22.771         21.112         17.436         14.143         12.208         11.579         11.529         7.011           7.291         21.605         16.148         12.896         11.039         10.463         10.421         7.896           8.401         20.013         18.8786         14.922         11.677         9.877         9.340         9.301         9.043         9.0143           9.601         20.020         18.057         14.014         10.737         8.969         8.448         8.407         10.220           10.789         19.736         17.541         12.9940         9.526         7.774         7.268									
3.692         30.992         29.306         25.405         21.463         18.720         17.407         17.079         4.278           5.365         24.837         23.223         19.562         16.151         14.055         15.310         13.218         5.960           6.411         22.771         21.112         17.436         14.143         12.208         11.579         11.529         7.011           7.291         21.605         19.885         16.148         12.896         11.039         10.463         10.421         7.896           9.601         20.020         18.057         14.014         10.737         8.969         8.448         8.407         10.220           10.789         19.736         17.611         13.344         10.002         8.249         7.736         7.686         11.414           11.746         19.584         17.414         12.940         9.526         7.774         7.268         7.212         12.376           14.128         20.062         17.375         12.298         8.643         6.869         6.383         6.325         14.772           15.068         20.378         17.494         12.536         6.589         6.111         6.055         1									
4.337         27.787         26.179         22.436         18.798         16.429         15.425         15.218         4.987           5.365         24.837         22.223         19.562         16.151         14.055         13.310         13.216         5.960           6.411         22.771         21.112         17.436         14.143         12.208         11.579         11.529         7.011           7.291         21.605         19.885         16.148         12.896         11.039         10.463         10.421         7.896           9.601         20.020         18.057         14.014         10.737         8.969         8.448         8.407         10.220           10.789         19.736         17.611         13.344         10.002         8.249         7.736         7.686         11.414           11.746         19.684         17.414         12.940         9.526         7.774         7.268         7.212         13.578           14.128         20.062         17.375         12.298         8.643         6.869         6.383         6.325         14.772           15.068         20.378         17.498         12.151         8.381         6.589         6.111         6									
5.365         24.837         23.223         19.562         16.151         14.055         13.310         13.218         5.960           6.411         22.771         21.112         17.436         14.143         12.208         11.579         11.529         7.011           7.291         21.605         19.885         16.148         12.896         11.039         10.463         10.421         7.896           8.431         20.613         18.786         14.922         11.677         9.877         9.340         9.301         9.043           9.010         20.020         18.057         14.014         10.737         8.969         8.448         8.407         10.220           10.789         19.736         17.414         12.940         9.526         7.774         7.268         7.212         12.376           12.941         19.794         17.325         12.2562         90.38         7.279         6.783         6.724         13.578           15.068         20.378         17.498         12.151         8.381         6.589         6.311         6.055         15.717           16.226         20.890         17.741         12.032         8.105         6.288         5.819         5.56									
6.411       22.771       21.112       17.436       14.143       12.208       11.579       11.529       7.011         7.291       21.605       19.885       16.148       12.896       11.039       10.463       10.421       7.896         8.431       20.613       18.786       14.922       21.677       9.877       9.340       9.301       9.043         9.601       20.020       18.057       14.014       10.737       8.969       8.448       8.407       10.220         10.789       19.775       17.611       13.344       10.002       8.249       7.736       7.686       11.414         11.746       19.684       17.471       12.928       8.643       6.869       6.783       6.724       13.578         14.128       20.062       17.375       12.298       8.643       6.869       6.183       6.325       14.772         15.068       20.378       17.474       12.032       8.105       6.288       5.619       5.768       16.881         17.351       12.530       18.407       11.973       7.878       6.030       5.378       5.356       18.022         19.333       22.972       18.408       11.962       7.724<									
7.291       21.605       19.885       16.148       12.896       11.039       10.463       10.421       7.896         8.431       20.613       18.786       14.922       11.677       9.877       9.340       9.301       9.043         9.601       20.020       18.057       14.014       10.737       8.969       8.448       8.440       10.220         10.789       19.775       17.611       13.344       10.002       8.249       7.736       7.686       11.414         11.746       19.684       17.414       12.940       9.526       7.774       7.268       7.212       12.376         14.128       20.062       17.375       12.298       8.643       6.869       6.383       6.325       14.772         15.068       20.378       17.498       12.151       8.381       6.889       6.111       6.055       15.717         16.226       20.890       17.741       12.032       8.106       6.288       5.819       5.758       16.881         17.351       21.298       8.643       6.869       6.311       6.055       15.717         16.226       20.890       17.741       12.032       8.064       6.803       5.577									
8.431 20.613 18.786 14.922 11.677 9.877 9.340 9.301 9.043 9.601 20.020 18.057 14.014 10.737 8.969 8.448 8.407 10.220 10.789 19.736 17.611 13.3344 10.002 8.249 7.736 7.686 11.414 11.746 19.684 17.414 12.940 9.526 7.774 7.268 7.212 12.376 12.941 19.794 17.325 12.562 9.038 7.279 6.783 6.724 13.578 14.128 20.062 17.375 12.298 8.643 6.869 6.383 6.325 14.772 15.068 20.378 17.498 12.151 8.381 6.589 6.111 6.055 15.717 16.226 20.890 17.741 12.032 8.105 6.288 5.819 5.768 16.881 17.361 21.530 18.076 11.973 7.878 6.030 5.571 5.524 18.022 18.249 22.129 18.408 11.962 7.724 5.850 5.398 5.356 18.915 19.333 22.979 18.897 11.989 7.562 5.651 5.209 5.173 20.006 20.387 23.925 19.464 12.055 7.426 5.477 5.045 5.015 21.065 21.411 24.950 20.099 12.155 7.314 5.323 4.901 4.878 22.095 22.208 25.813 20.651 12.258 7.239 5.212 4.798 4.782 22.896 22.88 25.813 20.651 12.258 7.239 5.212 4.798 4.782 22.896 22.896 22.813 12.748 7.054 4.891 4.580 4.580 4.581 25.562 24.859 28.969 22.813 12.748 7.054 4.891 4.580 4.580 22.895 27.337 32.000 25.5176 13.203 6.979 4.891 4.580 4.581 25.562 28.919 33.863 25.688 13.958 6.931 4.494 4.550 4.580 27.355 29.046 33.863 26.884 13.958 6.931 4.494 4.154 4.217 2.63 28.915 27.337 32.000 25.5176 13.405 6.959 4.566 4.217 4.263 28.915 27.355 14.197 6.927 4.439 4.107 4.173 30.446 30.559 35.196 28.376 14.511 6.927 4.439 4.107 4.173 30.446 30.559 35.196 28.376 14.511 6.927 4.439 4.107 4.173 30.446 30.559 35.196 28.376 14.511 6.927 4.439 4.107 4.173 30.446 30.559 35.196 28.376 14.511 6.927 4.439 4.107 4.173 30.446 30.559 35.196 28.376 14.511 6.927 4.439 4.107 4.173 30.446 30.559 35.196 28.376 14.511 6.927 4.379 4.390 4.050 33.863 36.412 30.484 15.480 6.956 4.203 3.904 4.019 33.697 33.863 26.884 13.958 6.931 4.494 4.154 4.211 29.767 4.263 28.915 4.299 35.482 36.463 32.083 16.597 7.025 4.804 33.904 4.019 33.697 33.863 26.884 13.958 6.956 4.203 3.995 4.048 33.001 33.867 36.498 35.498 35.482 36.463 32.083 16.597 7.025 4.804 33.866 3.893 37.211 38.269 35.585 32.777 17.880 7.102 3.991 3.669 3.864 38.219 38.269 35.585 32.777 17.880		-							
9.601       20.020       18.057       14.014       10.737       8.969       8.448       8.407       10.220         10.789       19.736       17.611       13.344       10.002       8.249       7.736       7.686       11.414         11.746       19.684       17.414       12.940       9.526       7.774       7.268       7.212       12.376         12.941       19.794       17.375       12.298       8.643       6.869       6.383       6.325       14.772         15.068       20.378       17.498       12.151       8.381       6.589       6.111       6.055       15.771         16.226       20.890       17.741       12.032       8.106       6.288       5.819       5.768       16.881         17.361       21.530       18.076       11.973       7.878       6.030       5.571       5.524       18.022         18.249       22.129       18.408       11.987       7.562       5.651       5.209       5.173       20.066         20.387       23.925       19.464       12.055       7.426       5.477       5.045       5.015       21.33       20.0651       12.258       7.239       5.212       4.798       4.562 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
10.789       19.735       17.611       13.344       10.002       8.249       7.736       7.686       11.414         11.746       19.684       17.414       12.940       9.526       7.774       7.268       7.212       12.376         12.941       19.794       17.325       12.562       9.038       7.279       6.783       6.724       13.578         14.128       20.062       17.375       12.298       8.643       6.869       6.383       6.325       14.772         15.068       20.378       17.741       12.032       8.105       6.288       5.819       5.768       16.881         17.361       21.530       18.076       11.973       7.878       6.030       5.571       5.524       18.022         18.249       22.129       18.408       11.962       7.724       5.850       5.398       5.356       18.915         19.333       22.979       18.897       11.989       7.562       5.651       5.209       5.173       20.006         21.411       24.990       20.099       12.155       7.314       5.323       4.901       4.878       22.095         22.208       25.813       20.651       12.258       7.239 <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td>				-					
11.746       19.684       17.414       12.940       9.526       7.774       7.268       7.212       12.376         12.941       19.794       17.325       12.562       9.038       7.279       6.763       6.724       13.578         14.128       20.062       17.375       12.298       8.643       6.869       6.383       6.325       14.772         15.068       20.378       17.498       12.151       8.381       6.589       6.111       6.055       15.717         16.226       20.890       17.741       12.032       8.105       6.288       5.819       5.768       16.881         17.361       21.530       18.076       11.973       7.878       6.030       5.571       5.524       18.022         18.249       22.129       18.408       11.989       7.562       5.651       5.398       5.356       18.915         19.333       22.979       18.8897       11.989       7.562       5.651       5.045       5.015       21.065         21.411       24.950       20.099       12.155       7.314       5.323       4.901       4.878       22.095         22.208       25.813       20.651       12.258       7.239 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
12.941       19.794       17.325       12.562       9.038       7.279       6.783       6.724       13.578         14.128       20.062       17.375       12.298       8.643       6.869       6.383       6.325       14.772         15.068       20.378       17.498       12.151       8.381       6.589       6.111       6.055       15.717         16.226       20.890       17.7741       12.032       8.106       6.288       5.819       5.768       16.881         17.361       21.530       18.076       11.973       7.878       6.030       5.571       5.524       18.022         18.249       22.129       18.897       11.989       7.562       5.651       5.398       5.356       18.915         19.333       22.979       18.897       11.989       7.562       5.651       5.209       5.173       20.006         20.387       23.925       19.464       12.055       7.426       5.477       5.045       5.015       21.065         21.411       24.950       20.099       12.155       7.314       5.323       4.901       4.878       22.095         22.208       25.813       20.651       12.258       7.239 <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	-								
14.128       20.062       17.375       12.298       8.643       6.869       6.383       6.325       14.772         15.068       20.378       17.498       12.151       8.381       6.589       6.111       6.055       15.717         16.226       20.890       17.741       12.032       8.106       6.288       5.819       5.768       16.881         17.361       21.530       18.408       11.973       7.878       6.030       5.571       5.524       18.022         18.249       22.129       18.408       11.962       7.724       5.850       5.398       5.356       18.915         19.333       22.979       18.897       11.989       7.562       5.651       5.209       5.173       20.006         21.411       24.950       20.099       12.155       7.314       5.323       4.901       4.878       22.095         22.208       25.813       20.651       12.258       7.239       5.212       4.798       4.6782       22.086         23.179       26.927       21.387       12.411       7.160       5.087       4.683       4.674       23.872         24.162       28.964       12.588       7.096       4.974									
15.068       20.378       17.498       12.151       8.381       6.589       6.111       6.055       15.717         16.226       20.890       17.741       12.032       8.105       6.288       5.819       5.768       16.881         17.361       21.530       18.076       11.973       7.878       6.030       5.571       5.524       18.022         18.249       22.129       18.897       11.989       7.562       5.651       5.209       5.373       20.006         20.387       23.925       19.464       12.055       7.426       5.477       5.045       5.015       21.065         21.411       24.990       20.099       12.155       7.314       5.323       4.901       4.878       22.095         23.179       26.927       21.387       12.258       7.239       5.212       4.798       4.762       22.896         23.179       26.927       21.387       12.411       7.160       5.087       4.663       4.674       23.872         24.122       28.061       22.166       12.589       7.096       4.974       4.500       4.581         24.859       28.969       22.813       12.748       7.054       4.891			_						
16.226       20.890       17.741       12.032       8.105       6.288       5.819       5.768       16.881         17.361       21.530       18.076       11.973       7.878       6.030       5.571       5.524       18.022         18.249       22.129       18.408       11.962       7.724       5.850       5.398       5.356       18.012         20.387       23.925       19.464       12.055       7.426       5.477       5.045       5.015       21.065         21.411       24.950       20.099       12.155       7.314       5.323       4.901       4.878       22.095         22.208       25.813       20.651       12.258       7.239       5.212       4.798       4.782       22.896         23.179       26.927       21.387       12.411       7.160       5.087       4.683       4.674       23.872         24.859       28.061       22.166       12.589       7.096       4.974       4.580       4.580       24.821         24.859       28.061       22.166       12.589       7.012       4.796       4.420       4.437       26.468         25.761       30.088       23.644       12.966       7.012	-							-	
17.361       21.530       18.076       11.973       7.878       6.030       5.571       5.524       18.022         18.249       22.129       18.408       11.962       7.724       5.850       5.398       5.356       18.915         19.333       22.979       18.897       11.989       7.562       5.651       5.019       5.173       20.006         20.387       23.925       19.464       12.055       7.426       5.477       5.045       5.015       21.065         21.411       24.950       20.099       12.155       7.239       5.212       4.798       4.782       22.896         23.179       26.927       21.387       12.411       7.160       5.087       4.683       4.674       23.872         24.122       28.061       22.166       12.589       7.096       4.974       4.580       4.580       24.821         24.859       28.969       22.813       12.748       7.054       4.891       4.505       4.580       24.821         24.859       28.969       22.813       12.748       7.054       4.891       4.505       4.580       4.581       24.821         25.761       30.088       23.644       12.966									
18.249       22.129       18.408       11.962       7.724       5.850       5.398       5.356       18.915         19.333       22.979       18.897       11.989       7.562       5.651       5.209       5.173       20.006         20.387       23.925       19.464       12.055       7.426       5.477       5.045       5.015       21.065         21.411       24.950       20.099       12.155       7.314       5.323       4.901       4.878       22.095         22.208       25.813       20.651       12.258       7.239       5.212       4.798       4.782       22.896         23.179       26.927       21.387       12.411       7.160       5.087       4.683       4.674       23.872         24.859       28.969       22.813       12.748       7.054       4.891       4.560       4.580       24.821         24.859       28.969       22.813       12.748       7.054       4.891       4.505       4.513       25.562         25.761       30.088       23.644       12.966       7.012       4.796       4.420       4.437       26.468         26.643       31.171       24.491       13.203       6.979							-		
19.333       22.979       18.897       11.989       7.562       5.651       5.209       5.173       20.006         20.387       23.925       19.464       12.055       7.426       5.477       5.045       5.015       21.065         21.411       24.950       20.099       12.155       7.314       5.323       4.901       4.878       22.095         22.208       25.813       20.651       12.258       7.239       5.212       4.798       4.782       22.896         23.179       26.927       21.661       12.589       7.096       4.974       4.580       4.674       23.872         24.859       28.969       22.813       12.748       7.054       4.891       4.505       4.513       25.562         25.761       30.088       23.644       12.966       7.012       4.796       4.420       4.437       26.468         26.643       31.171       24.491       13.203       6.979       4.642       4.284       4.320       28.054         28.194       32.974       26.033       13.673       6.942       4.566       4.217       4.263       28.915         29.042       33.863       26.884       13.958       6.931					-				
20.387       23.925       19.464       12.055       7.426       5.477       5.045       5.015       21.065         21.411       24.950       20.099       12.155       7.314       5.323       4.901       4.878       22.095         22.208       25.813       20.651       12.258       7.239       5.212       4.798       4.672       22.896         23.179       26.927       21.387       12.411       7.160       5.087       4.683       4.674       23.872         24.122       28.061       22.166       12.589       7.096       4.974       4.580       4.580       24.821         24.859       28.969       22.813       12.748       7.012       4.891       4.505       4.513       25.562         25.761       30.088       23.644       12.966       7.012       4.796       4.420       4.437       26.468         26.6643       31.171       24.491       13.203       6.979       4.642       4.284       4.369       27.355         28.194       32.974       26.033       13.673       6.942       4.566       4.217       4.263       28.915         29.716       34.501       27.555       14.197       6.927 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td>								-	
21.411       24.950       20.099       12.155       7.314       5.323       4.901       4.878       22.095         22.208       25.813       20.651       12.258       7.239       5.212       4.798       4.782       22.896         23.179       26.927       21.387       12.411       7.160       5.087       4.683       4.674       23.872         24.122       28.061       22.166       12.589       7.096       4.974       4.580       4.580       24.821         24.859       28.969       22.813       12.748       7.054       4.891       4.505       4.513       25.562         25.761       30.088       23.644       12.966       7.012       4.796       4.420       4.437       26.458         26.6643       31.171       24.491       13.203       6.979       4.506       4.342       4.369       27.355         27.337       32.900       25.176       13.405       6.959       4.642       4.284       4.320       28.054         28.194       32.974       26.033       13.673       6.942       4.566       4.217       4.263       28.915         29.716       34.501       6.927       4.439       4.107									
22.208       25.813       20.651       12.258       7.239       5.212       4.798       4.782       22.896         23.179       26.927       21.387       12.411       7.160       5.087       4.683       4.674       23.872         24.122       28.061       22.166       12.589       7.096       4.974       4.580       4.580       24.821         24.859       28.969       22.813       12.748       7.054       4.891       4.505       4.513       25.562         25.761       30.088       23.644       12.966       7.012       4.796       4.420       4.437       26.468         26.643       31.171       24.491       13.203       6.979       4.708       4.342       4.369       27.355         27.337       32.000       25.176       13.405       6.959       4.642       4.284       4.320       28.054         28.194       32.974       26.033       13.673       6.942       4.566       4.217       4.263       28.915         29.042       33.863       26.884       13.958       6.931       4.494       4.154       4.211       29.767         29.716       34.501       27.555       14.197       6.927									
23.179       26.927       21.387       12.411       7.160       5.087       4.683       4.674       23.872         24.122       28.061       22.166       12.589       7.096       4.974       4.580       4.580       24.821         24.859       28.969       22.813       12.748       7.054       4.891       4.505       4.513       25.562         25.761       30.088       23.644       12.966       7.012       4.796       4.420       4.437       26.468         26.643       31.171       24.491       13.203       6.979       4.642       4.284       4.369       27.355         27.337       32.000       25.176       13.405       6.959       4.642       4.284       4.320       28.054         28.194       32.974       26.033       13.673       6.942       4.566       4.217       4.263       28.915         29.042       33.863       26.884       13.958       6.931       4.494       4.154       4.211       29.767         29.716       34.501       27.555       14.197       6.927       4.373       4.050       4.129       31.293         31.404       35.761       29.168       14.841       6.936									
24.122       28.061       22.166       12.589       7.096       4.974       4.580       4.580       24.821         24.859       28.969       22.813       12.748       7.054       4.891       4.505       4.513       25.562         25.761       30.088       23.644       12.966       7.012       4.796       4.420       4.437       26.468         26.643       31.171       24.491       13.203       6.979       4.708       4.342       4.369       27.355         27.337       32.000       25.176       13.405       6.959       4.642       4.284       4.320       28.054         28.194       32.974       26.033       13.673       6.942       4.566       4.217       4.263       28.051         29.042       33.863       26.884       13.958       6.931       4.494       4.154       4.211       29.767         29.716       34.501       27.555       14.197       6.927       4.439       4.107       4.173       30.446         30.559       35.196       28.376       14.841       6.933       4.311       3.996       4.087       32.143         32.950       36.423       36.484       15.480       6.956	-								
24.859       28.969       22.813       12.748       7.054       4.891       4.505       4.513       25.562         25.761       30.088       23.644       12.966       7.012       4.796       4.420       4.437       26.468         26.643       31.171       24.491       13.203       6.979       4.708       4.342       4.369       27.355         27.337       32.000       25.176       13.405       6.959       4.642       4.284       4.320       28.054         28.194       32.974       26.033       13.673       6.942       4.566       4.217       4.263       28.051         29.042       33.863       26.884       13.958       6.931       4.494       4.154       4.211       29.767         29.716       34.501       27.555       14.197       6.927       4.373       4.050       4.129       31.293         31.404       35.761       29.168       14.841       6.933       4.311       3.996       4.087       32.143         32.258       36.183       29.919       15.189       6.944       4.250       3.945       4.048       33.001         32.950       36.412       30.484       15.480       6.956									
25.761       30.088       23.644       12.966       7.012       4.796       4.420       4.437       26.468         26.643       31.171       24.491       13.203       6.979       4.708       4.342       4.369       27.355         27.337       32.000       25.176       13.405       6.959       4.642       4.284       4.320       28.054         28.194       32.974       26.033       13.673       6.942       4.566       4.217       4.263       28.915         29.042       33.863       26.884       13.958       6.931       4.494       4.154       4.211       29.767         29.716       34.501       27.555       14.197       6.927       4.439       4.107       4.173       30.446         30.559       35.196       28.376       14.511       6.927       4.373       4.050       4.129       31.293         31.404       35.761       29.168       14.841       6.933       4.311       3.996       4.087       32.143         32.950       36.412       30.484       15.480       6.956       4.203       3.945       4.048       33.697         33.832       36.562       31.132       15.860       6.976									
26.643       31.171       24.491       13.203       6.979       4.708       4.342       4.369       27.355         27.337       32.000       25.176       13.405       6.959       4.642       4.284       4.320       28.054         28.194       32.974       26.033       13.673       6.942       4.566       4.217       4.263       28.915         29.042       33.863       26.884       13.958       6.931       4.494       4.154       4.211       29.767         29.716       34.501       27.555       14.197       6.927       4.373       4.050       4.129       31.293         31.404       35.761       29.168       14.841       6.927       4.373       4.050       4.087       32.143         32.258       36.183       29.919       15.189       6.944       4.250       3.945       4.048       33.001         32.950       36.412       30.484       15.480       6.956       4.203       3.904       4.019       33.697         33.832       36.562       31.700       16.261       7.001       4.088       3.806       3.950       35.494         35.482       36.463       32.083       16.597       7.025									
27.337       32.000       25.176       13.405       6.959       4.642       4.284       4.320       28.054         28.194       32.974       26.033       13.673       6.942       4.566       4.217       4.263       28.915         29.042       33.863       26.884       13.958       6.931       4.494       4.154       4.211       29.767         29.716       34.501       27.555       14.197       6.927       4.439       4.107       4.173       30.446         30.559       35.196       28.376       14.511       6.927       4.373       4.050       4.129       31.293         31.404       35.761       29.168       14.841       6.933       4.311       3.996       4.087       32.143         32.258       36.183       29.919       15.189       6.944       4.250       3.945       4.048       33.697         33.832       36.562       31.132       15.860       6.956       4.203       3.904       4.019       33.697         34.737       36.562       31.700       16.261       7.001       4.088       3.806       3.950       35.494         35.482       36.463       32.083       16.597       7.025									_
28.194       32.974       26.033       13.673       6.942       4.566       4.217       4.263       28.915         29.042       33.863       26.884       13.958       6.931       4.494       4.154       4.211       29.767         29.716       34.501       27.555       14.197       6.927       4.439       4.107       4.173       30.446         30.559       35.196       28.376       14.511       6.927       4.373       4.050       4.129       31.293         31.404       35.761       29.168       14.841       6.933       4.311       3.996       4.087       32.143         32.258       36.183       29.919       15.189       6.944       4.250       3.945       4.048       33.697         33.832       36.562       31.132       15.860       6.956       4.203       3.904       4.019       33.697         33.832       36.562       31.132       15.860       6.976       4.145       3.855       3.983       34.584         35.482       36.463       32.083       16.261       7.001       4.088       3.806       3.950       35.494         36.445       36.229       32.455       17.037       7.061		-							
29.042       33.863       26.884       13.958       6.931       4.494       4.154       4.211       29.767         29.716       34.501       27.555       14.197       6.927       4.439       4.107       4.173       30.446         30.559       35.196       28.376       14.511       6.927       4.373       4.050       4.129       31.293         31.404       35.761       29.168       14.841       6.933       4.311       3.996       4.087       32.143         32.258       36.183       29.919       15.189       6.944       4.250       3.945       4.048       33.001         32.950       36.412       30.484       15.480       6.956       4.203       3.904       4.019       33.697         33.832       36.562       31.132       15.860       6.976       4.145       3.855       3.983       34.584         34.737       36.562       31.700       16.261       7.001       4.088       3.806       3.950       35.494         35.482       36.463       32.083       16.597       7.025       4.043       3.767       3.924       36.243         36.445       36.229       32.455       17.037       7.061			-						
29.716       34.501       27.555       14.197       6.927       4.439       4.107       4.173       30.446         30.559       35.196       28.376       14.511       6.927       4.373       4.050       4.129       31.293         31.404       35.761       29.168       14.841       6.933       4.311       3.996       4.087       32.143         32.258       36.183       29.919       15.189       6.944       4.250       3.945       4.048       33.001         32.950       36.412       30.484       15.480       6.956       4.203       3.904       4.019       33.697         33.832       36.562       31.132       15.860       6.976       4.145       3.855       3.983       34.584         34.737       36.562       31.700       16.261       7.001       4.088       3.806       3.950       35.494         35.482       36.463       32.083       16.597       7.025       4.043       3.767       3.924       36.243         36.445       36.229       32.455       17.037       7.061       3.987       3.718       3.893       37.211         37.447       35.887       32.692       17.499       7.102									
30.559       35.196       28.376       14.511       6.927       4.373       4.050       4.129       31.293         31.404       35.761       29.168       14.841       6.933       4.311       3.996       4.067       32.143         32.258       36.183       29.919       15.189       6.944       4.250       3.945       4.048       33.001         32.950       36.412       30.484       15.480       6.956       4.203       3.904       4.019       33.697         33.832       36.562       31.132       15.860       6.976       4.145       3.855       3.983       34.584         34.737       36.562       31.700       16.261       7.001       4.088       3.806       3.950       35.494         35.482       36.463       32.083       16.597       7.025       4.043       3.767       3.924       36.243         36.445       36.229       32.455       17.037       7.061       3.987       3.718       3.893       37.211         37.447       35.897       32.692       17.499       7.102       3.831       3.669       3.864       38.219         38.269       35.585       32.777       17.880       7.140									-
31.404       35.761       29.168       14.841       6.933       4.311       3.996       4.087       32.143         32.258       36.183       29.919       15.189       6.944       4.250       3.945       4.048       33.001         32.950       36.412       30.484       15.480       6.956       4.203       3.904       4.019       33.697         33.832       36.562       31.132       15.860       6.976       4.145       3.855       3.983       34.584         34.737       36.562       31.700       16.261       7.001       4.088       3.806       3.950       35.494         35.482       36.463       32.083       16.597       7.025       4.043       3.767       3.924       36.243         36.445       36.229       32.455       17.037       7.061       3.987       3.718       3.893       37.211         37.447       35.897       32.692       17.499       7.102       3.893       3.669       3.864       38.219         38.269       35.585       32.777       17.880       7.140       3.887       3.630       3.841       39.046	-				-				
32.258       36.183       29.919       15.189       6.944       4.250       3.945       4.048       33.001         32.950       36.412       30.484       15.480       6.956       4.203       3.904       4.019       33.697         33.832       36.562       31.132       15.860       6.976       4.145       3.855       3.983       34.584         34.737       36.562       31.700       16.261       7.001       4.088       3.806       3.950       35.494         35.482       36.463       32.083       16.597       7.025       4.043       3.767       3.924       36.243         36.445       36.229       32.455       17.037       7.061       3.987       3.718       3.893       37.211         37.447       35.897       32.692       17.499       7.102       3.893       3.669       3.864       38.219         38.269       35.585       32.777       17.880       7.140       3.887       3.630       3.841       39.046	-			•					
32.950       36.412       30.484       15.480       6.956       4.203       3.904       4.019       33.697         33.832       36.562       31.132       15.860       6.976       4.145       3.855       3.983       34.584         34.737       36.562       31.700       16.261       7.001       4.088       3.806       3.950       35.494         35.482       36.463       32.083       16.597       7.025       4.043       3.767       3.924       36.243         36.445       36.229       32.455       17.037       7.061       3.987       3.718       3.893       37.211         37.447       35.897       32.692       17.499       7.102       3.893       3.864       38.219         38.269       35.585       32.777       17.880       7.140       3.887       3.630       3.841       39.046									-
33.832       36.562       31.132       15.860       6.976       4.145       3.855       3.983       34.584         34.737       36.562       31.700       16.261       7.001       4.088       3.806       3.950       35.494         35.482       36.463       32.083       16.597       7.025       4.043       3.767       3.924       36.243         36.445       36.229       32.455       17.037       7.061       3.987       3.718       3.893       37.211         37.447       35.897       32.692       17.499       7.102       3.893       3.669       3.864       38.219         38.269       35.585       32.777       17.880       7.140       3.887       3.630       3.841       39.046	_				-				
34.737       36.562       31.700       16.261       7.001       4.088       3.806       3.950       35.494         35.482       36.463       32.083       16.597       7.025       4.043       3.767       3.924       36.243         36.445       36.229       32.455       17.037       7.061       3.987       3.718       3.893       37.211         37.447       35.897       32.692       17.499       7.102       3.893       3.669       3.864       38.219         38.269       35.585       32.777       17.880       7.140       3.887       3.630       3.841       39.046									
35.482       36.463       32.083       16.597       7.025       4.043       3.767       3.924       36.243         36.445       36.229       32.455       17.037       7.061       3.987       3.718       3.893       37.211         37.447       35.897       32.692       17.499       7.102       3.931       3.669       3.864       38.219         38.269       35.585       32.777       17.880       7.140       3.887       3.630       3.841       39.046									
36.445     36.229     32.455     17.037     7.061     3.987     3.718     3.893     37.211       37.447     35.897     32.692     17.499     7.102     3.931     3.669     3.864:     38.219       38.269     35.585     32.777     17.880     7.140     3.887     3.630     3.841     39.046									
37.447     35.897     32.692     17.499     7.102     3.931     3.669     3.864:     38.219       38.269     35.585     32.777     17.880     7.140     3.887     3.630     3.841     39.046									
38.269 35.585 32.777 17.880 7.140 3.887 3.630 3.841 39.046									
·									
	39.326	35.161	32.750	18.370	7.192	3.837 3.833	3.581	3.814	40.108

M.	ACH NO =	25.00	CONE	ANGL	E =	6.00	D A	NGLE	0F	ATT	ACK =	5.00
			P FRE			AT			ANGL			
L/RN	0.	30.	6	0 •	9!	D •	120	•	150	•	180.	S/RN
		70 701				- 0			<b>,</b>			
40.422	34.732	32.581	18.8		7.29		3.77		3.53		3.786	41.210
41.565	34.324	32.285			7.3		3.72		3 • 47		3.763	42.360
42.521	34.030	31.971	19.8		7.3		3.68		3 • 43		3.744	43.321
43.774	33.718	31.504	20.3		7. 4		3.63		3.38		3.720	44.580
45.103	33.475	30.986	20.8		7.5		3.58		3.32		3.696	45.917
46.229	33.333	30.560	21.2		7.6		3.54		3 • 27		3.677	47.050 48.557
47.728	33.218	30.044	21.6		7.7		3.50		3.21		3.653	
49.342	33.166	29.576	22.0		7 - 8		3.46		3.15		3.627	50.179
50.696	33.164	29.262	22.1		8.0		3.43		3.09		3.606	51.541 53.305
52.450	33.192	28.962	22.3		8.1		3.39		3.03		3.578	
54.287		28.760	22.2		8.3		3 • 37		2.98		3.546	55.151
56.223		28.650			8.5		3.34		289		3.511	57.098 58.742
57.857		28.619	21.9		8.6		3.33		2.84		3.481	
60.028	33.364	28.634	21.7		8.97 9.19		3.32		2.78		3.440	60.924 63.274
62.365		28.691	21.3				3.32		2.72		3.395	
64.376	33.441	28.752	21.1		9.4		3.33		2 - 67		3.356	65.296 68.032
67.097	•	28.839			9.7		3.34		2 • 61		3.303	
70.069		28.932			10.1		3.37		2.55		3.245 3.196	71.020 73.516
72.551		29.011			10.3		3.39		2.51 2.47		3.133	76.740
75.757		29.107					3.43		2.42			80.086
79.085		29.190			10.9		3.50		2•:39		3.070 3.021	82.855
81.839 85.400	33.341 33.322	29.243 29.286			11.2		3.55		2.•36		2.962	86.436
89.100	33.318	29.301			11.3		3.60		2 • 33		2.907	90.156
92.944		29.296			11.3		3.65		2 • 30		2.854	94.021
96,126	33.336	29.284			11.4		3.70		2.28		2.812	97.221
100.243		29.264			11.4		3.77		2.26			101.361
104.519		29.244			11.4		3.83		2.24			105.660
108.058		29.228			11.4		3.89		2.22			109.219
112.633		29.210			11.3		3.96		2 • 20			113.819
117.383		29.195			11.3		4.03		2.19			118.595
121.313		29.187			11.2		4.08		2.18			122.547
126.395		29.182	19.1		11.2		4.15		2.16			127.657
131.672					11.1					56		132.963
137.153		29.193	19.1		11.0		4.28		2.14			138.474
141.690		29.204	19.1		11.0		4.32		2.13			143.036
147.560		29.220	19.0		10.9		4.37		2.13			148.939
153.660		29.238	19.0		10.8		4.42		2.12			155.072
158.712		29.253	19.0		10.8		4.49		2.13			160.152
165.252		29.27.2	19.0		10.7		4.49		2.1			166.728
172.051		29.289	19.0		10.7		4.53		2.11			173.565
177.685		29.303			10.6		4.56		2.11			179.230
184.980	33.606	29.317	19.0		10.6		4.59	-	2.11			186.564
192.565		29.330			10.5		4.61		2.11			194.192
200.454		29.339	19.0		10.4		4.64		2.1			202.124
こししゅイノマ	224000	# 7 # D D . 3	J + 0				, - 5	. –				

MA	исн ио =	30.90	CONE A	IGLE =	6.00	ANGLE OF	ATTACK =	5.00
		P /	P FRFF	-STREAM	AT PL	ANE ANGL	FS	
L/RN	0•	39•	60			0. 150		SZRN
<b>3.</b>		33.1					2,000	27
.865	100.967	96.534	85.25	71.67	4 59.9	66 52.46	4 49.913	1.435
1.058	86.576	82.732	72.95	61.29	51.3	67 45.06	6 42.949	
1.341	78.891	75.353	66.40	55.82	8 46.9	17 41.30	39.423	1.914
1.792	58.813	65.691	57.896		18 41.5	35 37.02	0 35.528	2.367
2•362	59.744	55.989	49.200					
3.051	49.964	47.485	41.49					
3.855	42.960	40.628	35.12					
4.763	37.750	35.463	30.19					
5.759	34.025	31.711	26.51					
6.825	31.435	29.039	23.78					
7.715	29.983	27.489	22.13					
8.860	28.764	26.105	20.55					
10.029	28.059	25.197	19.37				-	
11.210 12.393	27.751 27.750	24.652 24.386	18.50					
13.569	27.990	24.336	17.850 17.39					
14.731	28.431	24.457	17.06					
15.873	29.060	24.721	16.84					
16.991	29.869	25.115	16.71					17.650
18.081	30.854	25.632	16.65					18.746
18.930	31.759	26.131	16.65					
19.962	33.024	26.855	16.70					
20.962	34,413	27.680	16.80					
21.930	35.903	28.595	16.94					
22.866	37.465	29.589	17.11	9.98				
23.774	39.071	30.648	17.33	9.88	5 6.9	26 6.37	7 5.369	24.471
24.655	40.694	31.761	17.57		1 6.7	78 6.24	4 5.248	25.356
25.512	42.307	32.915	17.85			44 6.12		
26.348	43.884	34.100	18 • 14					
27.165	45.398	35.305	18.47					
27.809	46.549	36.277	18.743					
28.603	47.891	37.493	19.10					
29.389	49.104	38.701	19.48				- '	30.117
30.171	50.157	39.891	19.89					
30.952	51.058	41.051	20.31					
31.736	51.759	42.167	20.768					32.476
32.528	52.259 52.549	43.227	21.239					
33.333 34.154	52.633	44.211 45.098	21.73					
34.999	52.518°	45.865	22.82					34.908 35.757
35.694	52.294	46.374	23.29					36.457
36.594	51.869	46.855	23.91					37.361
37.520	51.321	47.143	24.56					38.293
38.470	50.697	47.225	25.24					39.247
39.448	50.039	47.100	25.94			_		
				,			****	

MAC	CH NO =	30.00	CONE AN	GLE =	6.00	ANGLE	0F	ATTACK	= !	5•00
			<b></b>			DI ANE	ANCI	EC		
	_		P FREE-			PLANE 120.	ANGL 150		.80 •	SZRN
L/RN	0 •	30 <u>•</u>	60•	90	J •	120.	190	) <b>⊕</b> - ⊥	.00	37
	40.700	1.C 794-	2.6 • 66 7	9.89	5.7	5.111	4.79	2 5.	138	41.250
40.461	49.390	46.781 46.284	27.417				4.72		104	42.312
41.518	48.787	45.641	28.184			4.962	4.65		070	43.426
42.625	48.259	44.892	28.959				4.57		038	44.599
43.792	47.824 47.495	44.086				4.816	4.50		006	45.842
45.029	47.311	43.433	30.301			4.759	4.43		980	46.895
46.076	47.176	42.648	30.953			4-691	4.35	-	948	48.294
47.467	47.137	41.944	31.478			4.627	4.26		915	49.784
48.948	47.176	41.378	31.822			4.569	4.17		881	51.323
50.479 52.063	47.251	40.953					4.08		844	52.916
53.714	47.340	40.672	31.936			4.473	3.99		804	54.576
55.446	47.429	40.524	31.73			4.435	3.9		759	56.317
57.276	47.511	40.489	31.40			4.405	3.8		710	58.157
59.224	47.590	40.543	30.97			4.384	3.72		657	60.116
61.312	47.667	40.655	30.48			4.373	3.6		598	62.216
63.102	47.724	40.768	30.07			4.371	3.57		547	64.015
65.513	47.774	40.921				4.378	3.4	91 4	. 477	66.439
68.148	47.782	41.077	-			4.397	3.4	1-0 -4	•399	69.090
71.045	47.740	41.238				4.426	3.3	31 4	•313	72.002
74.124	47.666					4.464	3.2	57. 4	. 222	75.098
77.317	47.587					4.507	3.1		.130	78.308
80.630	47.524					4.553	3.1		.038	81.640
84.069	47.489				14	4.604	3.0	-	•950	85.097
87.639	47.478				61	4.661	3.0	-	866	88,688
91.347	47.487		The second secon	7 15.9	44	4.725	2.9		.785	92.416
94.416	47.504			3 15.9	80	4.782	2.9	-	.723	
98.383	47.536	_				4.861	2.9		-648	
102.501	47.581		27.26			4.947	2.8	-		103.632
106.774	47.635	41.583				5.038	2.8			107.928
111.206	47.691	41.548				5.134	2.8			112.384
115.804	47.745					5.234	2.7	-		117.007
120.572	47.789					5.337	2.7			121.802
125.520	47.824					5.440	2.7			126.777
130.653	47.849	41.500	- 26.99			5.541		-		131.939
135,981	47.868	41.517				5.635	2.7	-		137.296
140.388	47.879					5.705	2.7			141.727
146.087	47.888					5.786	2.6			147.458
152.005	47.894					5.859	2.6			153.408
158.153	47.896					5.926	2.6			159.589
164.539	47.897					5.987	2.6	-		166.011 172.683
171.175	47.898					6.043	2.6			179.616
178.070	47.898			_		6.092	2.6	-		186.821
185.235	47.899			_		6.135	2.6			194.308
192.681	47.899					6.171	2.6			202.089
200.419	47.898	41.747	26.79	7 14.4	433	6.203	2.6	)		2020003

# NSHC/HOL/TR 75-45

	МАСН	NO =	3.50	CO	NE .	ANGL	E =		7.00	ANGLE	OF	ATT	ACK	=	5.0	0
	******										ANGL	ES				
		_		Р			KEP	90	. A 1	PLANE 120•	150		1	80.		S/RN
L/R	N	0 •	30•		ט	0-•		90	•	1504			_			
	_	- 407	2 40%		1.9	000	1.	64	R	1,423	1.27	7 45	1.	224		.411
. 84	-	2.183	2.104		1.7			53		1.326	1.19		1.	144		.502
•93		2.029	1.956		1.7			50		1.307	1.17		1.	129		. • 551
•98		1.999	1.926		1.6			46		1.268	1.13			095		.718
1.14		1.960	1.878			588		45		1.259	1.1			088		.846
1.27	_	1.951	1.866			579		45		1.256	1.1		1.	087		988
1.41		1.939	1.838			555		43		1.248	1.1		1.	880		2.231
1.65		1.911	1.614			633		. 41		1.238	1.1	25		087		2.414
1.83		1.886	1.772			595		. 38		1.218	1.1	14		080		2.722
2.14		1.842	1.741			567		.36		1.203	1.1	05	1.	073		2.950
2.36		1.810	1.712			539		. 34		1.198	1.0	97		067		3.197
2.6		1.782	1.676			503		. 31		1.170	1.0	87		060		3.606
3.0		1.746	1.655			483		. 29		1.155	1.0	79		056		3.903
3.3		1.699	1.630			456		. 27		1.133	1.0	66		048		4.389
3.7		1.687	1.617			441		. 25		1.121	1.0	57	1.	042		4.738
4.1		1.678	1.607			429		. 21		1.111	1.0			037		5.109
4.5		1.670	1.597			416		. 23		1.101	1.0			.031		5.706
5.1 5.5		1.668	1.594			410			23	1.096	1.0			.031		6.131
6.2		1.669	1.592			404			15	1.091	1.0		_	.033	_	6.810
6.6		1.672	1.594			402	1	. 2	12	1.088	1.0			.035		7.291
7.1		1.676	1.598			401		. 2:		1.087	1.0		1	037		7.793
7.9		1.683	1.602			403	1	2	09	1.086		145		. 841		8.590
8.5		1.690	1.607		-	404	1	. 2	09	1.087		147		.044		9.150
9.3		1.700	1.619			408	1	. 2	10	1.089		52		.049	_	0.033
10.0		1.707	1.62			411		L • 2	11	1.091		155		.05	-	0.651
10.6		1.714	1.62			414	1	L• 2	13	1.093		159		• 057		1.293
11.6		1.724	1.636		1.	420		L•2		1.095		064		. 86		2.301
12.3		1.731	1.64		1.	423		1.2		1.099		068		.06	-	3.004
13.4		1.741	1.65		14	429		1.2		1.102		074		.07		4.870
14.1		1.747	1.65	6	1.	433		1.2		1.105		077		•07		5.660
14.9		1.753	1.66	1.	1-	436		1.2		1.107		081		.08		6.895
16.2		1.761	1.66	8		441			29	1.110		085		.08		7.752
17.0		1.766			1.	445		1.2		1.113		880	1	•09		8.635
17.9		1.771	1.67			448		1.2		1.114		091		-09		20.012
19.		1.777	1.68	3		452		1 • 2		1.117		095		•10		20.965
20.		1.781	1.68	6		455		1.2		1.119		097		.10		22.448
21.		1.786	1.69	1	-	• 459		1.3		1.121		100		. 10		23.473
22.		1.789				•461			243	1.123		101		• 10		24.529
23.		1.792	1.69			• 464			245	1.124		103		L•10		26.170
25.		1.796				•467			247	1.126		105 106		1.10		27.303
26.		1.798	1.70			. 469			249	1.128		187		1.11		29.064
28.		1.802				•472			251 252	1.129		108		111		30279
29.		1.804				•473			252	1.130		109		1.11		31.529
30•	734	1.805				• 475			254	1.131		110		1.11		33.469
32.		1.808	1.71	2	1	•477		1.	255	1.133	Τ.		•			

MAC	CH NO =	3.50	CONE	ANGLE	= 7-	00	AN	NGLE	OF	ATT	ACK =	5.00
1.401	n		P FRE		MA: 90•	A-T	PLAN 120		NGL 150		180	• S/PN
L/RN	0 •	30•	וס	J •	90 €		120	•	190	•	00	• 37(11
33.988	1.809	1.714	1.4		.257		1.134		L • 11		1.11	
36.050	1.811	1.716	1.4		. • 258		1.13		1.11		1.11	
37.472	1.812	1.717	1.4		. 259		1.136		1.11		1.11	
38.934	1.813	1.718	1.4		. 260		1.136		1 • 11		1.11	
41.203	1.815	1.720	1.4		. 261		1.13		1.11		1.11	
42.768	1.816	1.721	1.4		. 262		1.13		1•11 1•11		1.11	
45.198	1.817	1.722	1.4		263		1•139 1•139		1 • 1 1		1.11	
46.875	1.818	1.723	1.4		L•264 L•265		1.14		1.11		1.11	
48.600 51.278	1.818 1.819	1.723 1.724	1.4		-266		1.14		1.11		1.11	
53.127	1.819	1.725	1.4		266		1.14		1.1		1.11	
56.001	1.820	1.726	1.4		.267		1.14		1.11		1.11	
57.987	1.820	1.726	1.4		1.268		1.14		1.11		1.11	
60.030	1.820	1727	1.4		.268		1.14		1.11		1.11	
63.206	1.821	1.727	1.4		.269		1.14		1.11		1.11	
65.402	1.821	1.728	1.4	95 1	1.269	-	1.14	3 :	1.1	16	1.11	
67.663	1.821	1.728	1.4	95 1	L. 269		1.14		1.11		1-11	
71.180	1.821	1.728	1.4		L•27 <u>-</u> 0		1.14		1.11		1-11	
73.612	1.821	1.4729	1.4		L•27-0		1 • 14		1 • 11		1 • 1 1	
77•397	1.821	1.729	1.4		1.271		1.14		1 - 1:		1,11	
80.015	1.821	1.729	1.4		L.271		1.14		1.1		1.11	
82.711	1.821	1.730	1.4		1.271		1.14		1.i		1-11	
86.909	1.822	1.730	1.4		1.272		1.14		1•1: 1•1:		1.11	
89.813	1.822	1.730	1.5		1.272		1.14 1.14		1•1. 1•1:		1.11	
94.334	1.822	1.730 1.730	1.5 1.5		1 • 272 1 • 272		1.14		1.1		1.11	
97.462 100.685	1.822 1.822	1.730	1.5		1.273		1.14		1.1			7 102 005
105.702	1.822	1.731	1.5		1.273		1.14		1.1			7 107.060
109.173	1.822	1.731	1.5		1.273		1.14		1.1			7 110.557
114.579	1.822	1.731	1.5		1.273		1.14		1.1			7 116.003
118.319	1.822	1.731	1.5		1.273		1.14		1.1			7 119.772
122.173	1.822	1.731	1.5		1.273		1.14		1.1			7 123.654
128,173	1.822	1.731	1.5	04	1.274		1.14		1.1			7 129.699
132.325	1.822	1.731	1.5		1.274	+	1.14		1.1			7 133 883
138.790	1.822	1.731	1.5		1 • 274		1.14		1.1			7 140.396
143.264	1.822	1.731	1.5		1.274		1.14		1.1			7 144-904
147.873	1.823	1.731			1 • 274		1.14		1.1			149.548
155.051	1.823	1.731	1.5		1.275		1.14		1.1			7 156.779
160.017	1.823	1.731			1.275		1.14		1.1			7 161.783
167.751	1.823	1.731			1.279		1.14		1.1			169.575 174.967
173.103	1.823	1.731			1 - 275		1.14		1.1			17 180.523
178.617	1.823	1.731			1.276 1.276		1.14		1.1			17 189-174
187.204	1.823 1.823	1.731 1.731			1.276		1.14		1.1			17 195.160
193.146	1.824	1.731			1.277		1.14		1.1			17 204.482
202,399	1-4-06-4	1.0.731	T + 2	ر ن,	¥ 0,651°1		T.4.T.4		1	- /	-a- <u>-</u> a- ,	

MAC	H NO =	5.00	CONE	ANGLE	= 7.00	ANGLE	0F	ATTAC	K =	5.00
						D: 4115	****	50		
	_				REAM AT		ANGL		180.	S/RN
L/RN	0 •	30•		60.	90•	120.	150	•	700•	37 KN
• 853	3.603	7.460	₹.	004	2.646	2.253	1.99	7 1	.910	1.424
• 947	3.369	7.234	2.	ARG	2.469	2.103	1.86		.785	
1.058	3.273	3.141	2.	807	2.396	2.043	1.81		.738	
1.186	3.273	3.171	2.		2.338		1.77		•699	
1.413	3 . 00n	2.964	2.	642	2.259	1.932	1.72		.654	
	2-957	2.835	2-	528	2.166	1.862	1.67		-607	
1.893	2.863	2.744	2.	445	2.096	1.808	1.63			2.471
2.244	2.712	2.598	2.	312	1.986	1.724	1.56	6 1	•515	2.825
2.509	2.620	2.506	2.	224	1.912	1.667	1.52		.477	3.092
2.947	2.496	2.384	2.	108	1.808	1.582	1.45		.420	3.533
					1717		1.39	2 1	•362	4.023
	2.339	2.226	1.	951	1.664		1.35	1 1	.324	4.376
4.350	2.276		1.	881	1.595	1.394	1.29		.273	
	2.234		1.	828	1.539	1.342	1.25	52 1	.231	5.566
		2.093	1.	800	1.509	1.313	1,22	?7 1	.208	6.005
6.093	2.201	2.073	1.	770	1.473	1.276	1.19	94 1	.178	6.703
	2.198	2.066	1.	755	1.454	1.257	1.17	6 1	•161	7.195
7 757	2 202	2.066	1.	742	1.432	1.313 1.276 1.257 1.233 1.216 1.207	1.15	54 1	.140	7.971
8.171	2.218	2.074	1.	736	1.417	1.216	1,13		•124	8.796
8.744	2.231	2.08-3	1.	736	1.410	1.207	1.12			9.373
9.644	2.256	2.101	1.	741	1-404	1.216 1.207 1.197 1.192 1.187	1.12	21 1		
10.273	2,275	2.115	1.	746	1.402	1.192	1.11	7 1		
11.262	2.305	2.140	1.	757	1 - 401	1.187	1.11	1 1		
12.307	2 • 337	2.166	14	<i>f-(</i> U	1.403	1.104	1011	1 2		
13.335	2.358	2.184	1.	789	1.405	1.184		13 1		
14.160	2.390	2.212	2.		1.410			14 1		
15.325	2.420	2.238	1.	812				17 1		
16.123	2.438	2.254	1.	82-3			1.11		•115	
17.353	2.464	2.278	1	840			1.13		.120	
18.194	2.480	2.292	1.	850	1.432	1.190	1.12		.124 .130	
19.487	2.501	2.312		865		1.193	1.13		•136	
20.818				879	1-446	1.195 1.197			•140	
21.726		2.341		887	1.451					
23.121	2.547			899		1.203	1.1		· 150	
24.554	2.560	2.369		911	1.464	1-205	1.1	•	•154	
25.530	2.568	2.377		918	1-469 1-475	1.208	1.1		•158	
27.028	2.579	2.388		•927 •933	1.479	1.210	1.1		.161	
28.049	2.585	2.394 2.403		•942	1-484	1.213	1.1		•165	
29.614 31.223	2.594 2.601	2.413		• 949	1.490	1.216	1.1		•169	
32.319	2.605	2.416		• 954	1.493	1.218	1.1		•171	-
34.004	2.611	2.422		960	1.498	1.221	1.1		.174	•
35.154	2.614	2.426		•964	1.501	1.223	1.1		.175	
36.923	2.618	2.431		• 97-0	1-505	1.226	1.1		•178	
38.748	2.622	2 - 436		975	1-509	1-229	1.1		-180	-
5551.5										

MA	CH NO =	5.00	CONE	ANGLE	<u> </u>	7.00	)	ANGLE	OF	ATT	ACK =	5.00
		D /	D E0	EE-STR	o É'A M	AT	D!	ANE	ANGL	E0		
1 ZDN	0.	30.		60•	(EAN 90			10 •	150		180.	SZRN
L/RN	U •	30 •		00•	50	; <b>•</b>	16		170	•	1000	37
39.998	2.623	2.439	1	978	1.51	l <b>1</b>	1.2	31	1.16	7	1.181	40.862
41.925	2.626	2.442		983	1.51		1.2		1.16	9	1.183	42.803
43.918	2.627	2.445		987	1.51	18	1.2	36	1.17	0	1.184	44.811
45.285	2.628	2.447	1.	989	1.5	20	1.2	237	1.17		1.185	46.189
47.397	2.629	2.449	1.	993	1.58	23	1.2		1.17		1.186	
48.848	2.629	2.450		995	1.5		1.2		1.17		1.186	49.779
51.090		2•452		999.	1.58			43	1.17		1.187	
53.414		2.453		002	1.5			45	1.17		1.188	54.379
55.012		2.453		004	1.5		1.2		1.17		1.188	55.989
57.482		2.454		007	1.5		1.3		1.17		1.189	
59.180		2.454		009	1.5		1.2		1.17		1.189	50-188
61.807	2.630	2.454		012	1.5		1-3		1.17		1.190	62.835 65.581
64.532	2.629	2.455	_	014	1.5		1.3		1.1		1.190	
66.407	2.629	2.455		016	1.5		1.		1.1		1.190	67.469 70.391
69.307	2.629	2.455		019	1.5		1.2		1.1		1.190	
72.317	2.628	2.455		021	1.5			256 257	1.1		1.191	
74.387	2.628	2.455		.023				258	1.1		1.191	
77.592	2.628	2.455		025	1.5			259	1.1		1.191	
79.796	2.628	2.455 2.455		026 027	1.5		1.6		1.1		1.191	
83.207	2.627 2.62	2.455		:0 <i>21</i> :028-	1.5			261	1.1			87.964
86.748 89.185	2.627	2.455		029	1.5			261	1.1			90.418
92.956				030	1.5			262	1.1			94.218
96.871		2.454		0.30		48		263	1.1		1.192	
99.565		2.454		030		49		263	1.1			100-877
103.734		2.453		-030-				264	1.1			105.077
106.602		2.453		030	1.5			264	1.1			107.967
111.042		2.453		.030		53		264	1.1			112.440
115.652		2.452		030	1.5			265	1.1			117.084
118.823				÷029	1.5	56	1.	265	1.1	89		120.279
123.732				-029	1.5		1.	265	1.1	89		125.225
127.108	2.630	2-452	2.	028	1.5	59	1.	265	1.1			128.627
132.335		2.452		028	1.5			266	1.1			133.893
137.763	2.631	2.451	2.	0.27	1.5			266		90		139.362
141.498	2.631	2.451		026	1.5			266	1.1			143.124
147.278	2.631	2.451		026	1.5			266	1.1			148.948
153.280	2.632	2.451		025	1.5			266	1.1			154.995
157-410	2.632	2.451		024	1.5			266	1.1			159.156
163.802		2.451		024	1.5			266	1.1			165.596
168.200		2.451		:023	1.5			266	1.1			170.027
175.008	2.633	2.451		022	1.5			266	1.1			176.886
182.078		2.451		022	1.5			266 26.7	1.1			184.009
186.942		2.451	_	021	1.5			267 26.7	1.1			188-910
194.472		2.451		020	1.5			267 267	1.1			196.497
202.293	2.634	2.451	2,	020	1.5	12	1.	267	1.1	76	1-195	204.376

MA	CH NO =	10.00	CONE AN	NGLE =	7.00	ANGLE	OF	ATTAC	K =	5.00
		P /	P FREE-	-STRFAM	ΙΔΤ	PI ANF	ANGL	ES		
L/RN	0.	30.	60	, 011(4,71	0.	120.			180.	S/RN
	• •									
· 85 <sup>-</sup> 2	11.946			2 8-5	56	7.191	6.31		.013	
1.003	11.042		9.358	5 7.8	96	6.642	5.83		•567	
1.199	10.427	9 • 97 4	8 • 822	2 7.4	50	6.283	5.54		•293	
1.428	9.807	9.378	8 • 29	7.0	115	5.938	5.26			2.003
1.793	8.915	8-519	7.529	6 • 3	883	5.441	4 - 56	2 4		2.370
2.111	8 • 243	7 - 874	6.94	5.8	397	5.055	4.55	2 4		2.691
2.597	7.422	7.068	6+200	5 5 6	: 7 U	4.555				3.180 3.592
	6.880	6.541	5.45	9 4	544 21. 1.	7 76 6	3.85		•748 •393	
3.611		5.950 5.594					3.22			4.701
4 • 1 0 6		5.222				3.154	2.93			5.418
5.581	2022	4.953	4.40	1 3 T			2.68			6.187
2 4 2 2 1	5.174	4.805	7.07	3 3.2	20 Z		2.52			6.792
7.017	5-159	4668	3.80	2 3.1	116	2.535	2.34		.310	7.634
7.654	E 047	4.602	7.701	5 2.0	ነበ ሬ	2-421	2.23	4 2	1 49	8.286
8.55.0	4.996	4-556	3.60	9 2.7	183	2.294	2.11	0 2		9.179
9.230	5.011	4.547	3.55	8 2.7	709	2.215	2.03	1 1	996	9.863
10.152	5.064	4.564	3.51	4 2.6	531	2.126	1.94		.907	
10.855	5.123	4.596	3.49	6 2.5	583	2.070	1.88		.849	
11.804	5.225	4.659	3.48	9 2.5	533	2.007	1.82		.785	
12.766	5.347	4.55.6 4.55.6 4.564 4.596 4.659 4.741 4.814	3.49	3 2.4	+95	1.954	1.76	66 1	.731	
13.495	5.450	4.814	3.51	5 2.0	+/4	1.920	10/3	31 1	.697	
14.476	5.598	4.923	3.54	5 2.4	+52	1.880	1.69	1 1	.657	
15.217	5.716	5.012	3.57	5 2.1	+41	1.855			•632	
16.214	5.879	5.138	3.62	3 2.1	431	1.826			.603	
16.967	6.003	5.236	3.66	3 2.4	+28	1.806			• 585	
17 - 978	6.170	5.370	3.72	3 2.4	+27	1.784	1.59		•563	
18.741		5.471					1.57		• 550-	
		5.607				1.752	1.55		. 534	
		5706				1.741	1.54		.524	
		5.836				1.727	1.53		.•513	
		5.961				1.716	1.51		•503	
23.432	6.942			7 2.5	482	1.798	1.51		.497	
24.511	7.057	6.163		2 2.	500	1.699			.491	
25.334	7.134	6.243			515	1.693	1.49		. 487	27.216
26.454	7.225	6.34-3			538 556	1.686 1.681	1.48		.•482 .•480	
27.314	7.283	6-413			581	1.676	1.4		478	29.272
28 494	7.346	6.499			502	1.673	1.46		. 477	30.193
29.408	7.381 7.412	6∍556 €∞623			5 <b>31</b>	1.670	1.46		.476	31.466
30.672 31.995	7.423	6.677		-	562	1.668	1-4		. 476	32.799
33.032	7.422	6+707			587	1.667	1.49		.476	33.844
34.480	7.409	6.732		-	720	1.667	1.4		.477	
35.622	7.396	5•740 6•740			746	1.658	1.4		-478	
37.226	7.375	6.736			782	1.671	1.4		.480	38.069
0,450		541.00	,,,,		. ~		• •			

	MACH NO =	10.00	CONE	ANGLE	=	7.00	AN	IGLE OF	ATT	ACK =	5.00
		D /	D ED	EE-STR	CAM	AT	PLAN	15 ANG			
L/R	N 0.	30.		50.	90		120		LES	4.00	C 4011
		<b>00</b> •	•	50•	70	•	120	) 15	0 •-	180.	SZRN
38.49	6 7.361	6.726	4.1	868	2.80	q	1.674	1.4	34	1.482	39.349
40.28		6.705			2.84		1.68			1.484	
41.70		6.688			2.87		1.685			1.485	
43.66	_	6.666	4.0		2.90		1.694			1.487	
45.17		6.651			2.92		1.701			1.488	46.081
47.26		6.633	5.0		2.95		1.712			1.489	48.184
49.43	5 7.282	6.618		59 .	2.98		1.725			1.490	50.370
51.11	7 7.275	6.608			3.00		1.735			1.498	52.065
53.43		6.597			3.02		1.748			1.490	54.403
55.23	7 7.262	6.590			3.04		1.759			1.490	56.216
57.71	7 7.258	6.581			3.06		1.774			1.489	58.715
59.64	0 7.255	6.575	5.0		3.08		1.785			1.489	60.652
62.29	0 7.254	6.569			3.10		1.800			1.487	63.322
64.34	7,253	6.565	-5 • (		3.12		1.811			1.486	65.392
67.17	7.253	6.562	5.0		3.14		1.825			1.484	68.244
70.11	4 7.253	6.559	5.0		3.16		1.839			1.482	71.205
72.39	2 7.253	6.558	5.0		3.18		1.849			1.481	73.500
75.53	7.253	6.557	4.3		3.20		1.861			1.479	76.662
77.96	4 7.254	6.556	4.9		3.21		1.869			1.478	79.113
81.31		6∙-556	4.5		3.23		1.880			1.476	82.491
83.91		6.556	4.		3.24		1.886			1.474	85.108
87.49	4 7.259	6.555	4.9		3.25		1.895			1.472	88.715
90.26	7.261	6.555	4.0		3.26		1.900			1.471	91.510
94.09	7.264	6.555	4.9		3.27		1.907			1.469	95.361
97.05		6.556	4.9		3.27		1.911			1.468	98.346
101.13		6.556	4.9	124	3.28		1.916				102.459
105.37		6 • 55 7	4.9	916	3.28	4	1.921				106.730
108.66		6.557	4.9	10	3.28	5	1.925				110.041
113.19	-	6 • 558	4.9	002	3.28	5	1.930				114.604
116.70		6 • 559	4 • 8	97	3.28	5	1.934				118.141
121.539		6.561	4.• 8	90	3.28	5	1.939	1.4	69⊨		123.015
125.29		6 • 56 2	4.• 8		3.284		1.943	1.4	72		126.794
130.459		6.563	4.8	79	3 - 282	2	1.949	1.4	76-		132.003
134.46		6.565	4 • 8		3.279	9	1.953	1.4	79		136.041
139.992		6.566	4 • 8		3.276	5	1.959	1.4	82		141.608
145.732		6.568	4 • 8		3 • 27	2	1.965	1.4	85	1.460	147.390
150 • 182		6.569	4 • 8		3.269	9 ;	1.969	1.4	87		151-873
156.317		6.571	4 • 8	-	3.264	4 :	1.974	1.4	9 D		158.055
161.07		6.572	4.8		3.26		1.978		92		162.848
167.63		6.574	4 • 8		3.25		1.983		94		169.456
172.72	-	6.575	4.8		3.251		1.987		96		174.581
179.73		6.577	4 • 8		3.246		1.992			1.462	181.648
185 - 174		6.578	4 • 8		3.242		1•995			1.462	187.128
192.674		6.579	4.8	-	3.236		1.999			1.463	194.685
200.468	7.301	6.580	4.•-8	52	3.231	L	2.003	1.5	0 S	1.463	202.538

MA	CH NO =	15.00	CONE ANG	LE = 7.	00 ANG	LE OF AT	TACK =	5.00
			•					
					T PLANE			- 4514
L/RN	0 •	30 •	60•	90.	120•	150.	180.	S/RN
26.1	05 051	01 774	04: 070	40 240	45 677	47 540	40:470	4 474
.864	25.854	24.731		18.418	15.437	13.519	12.870	
1.062	23.430	22.407	19.801	16.679	14.007	12.302	11.728	1.634
1.266	22.041	21.068	18.602	15.676	13.202	11.640	11.116	1.839 2.166
1.590	20.055	19.160	16.916 15.157	14.294 12.831	12.114 10.951	10.757 9.816	10.304 9.444	
1.979	18.017 15.633	17.195 14.882	13.051	11.060	9.539	8.680	8.413	
2.558 3.096		13.303	11.598	9.801	8.481	7.785		
3.695	12.694		10.368	8.710	7.545		6.810	
4.352	11.670		9.371	7.791	6.738	6.258	6.143	
5.241	10.745		8.416	6.885	5.907		5.427	
5.998	10.233	9.493	7.842	6.321	5.377	5.004	4.936	
6,784	9.882	9.104		5.872	4.946	4.589		
7.595	9.661			5.513	4.594	4.249		
8.630	9.530	8.636			4.241			
9.471	9.520	8.561	6.582	4.942	4.014			
10.317		8.549		4.763	3.824		_	
	9.693	8.588		4 • 617				-
12.228	9.899			4.471	3.497			
13.073				4.378				
13.912	10.348	8.971			3.287		54	
14.744	10.618			4.242	3.202			
15.772	10.994				- A-A-A	2.771		_
16.583	11.321	9.625			3.048			
17.383	11.666	9.867	6.503	4.116	2.992	2.651	2.595	18.077
18.172	12.024	10.124	6.582	4.094	2.942	2.600	2.547	
19.144	12.480	10.463	6.694	4.075	2 • 887	2.544	2494	
19.910	12.845	10.743	6.792	4.066	2.847	2.505	2.456	
20.667	13.205	11.029	6.899	4.062	2.812	2.469	2.423	
21.417	13.555	11.317		4.061	2 - 779		2.392	
22.347	13.971	11.676	7 • 161	4.066	2 • 743	2.399	2.353	
23.087	14.282	11.958	7:• 287		2.716	2.372	2.335	
23.825	14.571		7-418	4.084	2.691	2.347		
24.565	14.833	12.503	7.554	4.097	2 • 668	2.323	2 • 294	
		12.824			2.641			
26.248	15.311	13.066	7: 874	4.137	2.621	2.276	2.256	27.009
27.011	15.467	13.292	8.+022	4.159	2.602	2.257	2.242	
27.787	15.585	13.499	8.173	4.183	2.584	2.239	2.228	
28.783	15.578	13.728	8-366	4.218	2.562	2.217	2.214	
29.604	15.711	13.882	8.522	4.248	2.546	2.200	2.203	
30.451	15.708	14.007	8 680	4.282	2.530	2.184	2.193	
31.328	15.677	14.100	8.840 9.039	4.319	2.515	2.168 2.148	2.184 2.174	
32.474	15.605	14.167 14.181	9.198	4•369 4•414	2:•497 2:•483	2.132	2.167	34.249
33.434 34.429	15.530 15.448	14.163	9.355	4.462	2.471	2.132	2.161	35.252
35.465	15.363	14.116	9.507	4.513	2:•471 2:•458	2.110	2.155	
39.409	154303	TATTO	74707	4013	公司 サンロ	C + T 0 0	C + T.2.2	304633

M	ACH NO =	15.00	CONE	ANGLE	=	7.00	) #	NGLE	0F	AT-T	AC . =	5.00
		5.4	0 50	CC. CT0	C4.W		D1 (	A A 1 000				
				EE-STR		AT	PL		ANG		4.00	0.401
L/RN	0.	30•	(	60•	90	•	120	J •	15	J •	180.	S/RN
36.826	15.258	14.025	9.1	688	4.58	3	2.40	45	2.8	79	2.148	37.667
37.977		13.935			4.64		2.43		2.0		2.143	38.826
39.189		13.834			4.70		2.42		2.0		2.139	40.047
40.471		13.730	10.		4.77		2.42		2.0		2.134	41.339
42.186		13.605	10.		4.86		2.45		2.01		2.129	43.067
43.658		13.514	10.		4.94		2.4:		1.9		2.124	44.550
45.231		13.438	10.		5.02		2.41		1.9		2.119	46.135
46.914		13.377	10.		5.11		2.45		1.9		2.114	47.830
49.169		13.324	10.		5.22		2.42		1.9		2.105	50.102
51.101		13.324	10.		5.31		2.43		1.9		2.097	52.048
53.157		13.283	10.		5.40		2.45		1.8		2.088	54.120
55.296		13.279			5.49		2.47		1.8		2.078	56.275
58.071		13.283			5.61		2.50		1.8		2.064	59.071
60.374		13.290			5.69		2.58		1.8		2.052	61.391
62.754		13.299			5.77		2.5		1.8		2.039	63.789
65.213		13.309			5.84		2.58		1.8		2.027	66.267
68.403		13.323			5.91		2.68		1.8		2.011	69.481
71.052		13.333			5.96		2.66		1.8		1.998	72.150
73.790		13.341			6.00		2.69		1.7		1.985	74.908
76.620		13.348		652	6.02		2.73		1.7		1.972	77.760
80.293		13.353			6.05		2.77		1.79		1.956	81.460
83.344		13.355			6.06		2.80		1.7		1.944	84.534
86.499		13.355			6.07		2-83		1.7		1.933	87.712
89.761		13.355			6.07		-2 - 86		1.7		1.921	90.999
93.995		13.354			6.07		2.89		1.7		1.908	95.265
97.513		13.353			6.06		2.92		1.8		1.898	
101.151	_	13.352			6.05		2.94		1.8			102.475
104.913		13.352			6.04		2.97		1.8			106.265
109.798		13.352		487	6.02		2.99		1.8			111.186
113.856		13.353			6.01		3-01		1.8			115.275
118.053		1.3.354			5.99		3.03		1.8			119.504
122.395		13.356			5 - 97		3.09	56	1.8	38	1.846	123.878
128.033	15.024	13.359	9.		5.95		3.07			48-	1.838	129.559
132.719	15.028	13.363	9.	446	5.93	8	3.09	93	1.8	56	1.832	134.279
137.567	15.031	13.366	9.₌	441	5.92	1	3-10	8 (	1 . 8	65	1.827	139.164
142.582	15.034	13.370	9.	436	5.90	4	3.12	22	1.8	73	1.823	144.217
149.097	15.036	13.375	9.	432	5.88	2	3.13	38	1.8	83	1.818	150.781
154.513	15.038	13.379	9.	430	5.86	6	3.15	50	1.8	91	1.814	156.238
160.118	15.039	13.38.2	9.	428	5. 85	0	3-16		1 . 8			161.884
165.918	15.039	13.386	9.		5.83		3 17		1.9			167.728
173.454		13.390	9.	429	5 . 81	4	3.18		1.9			175.321
179.720		13.392	9.	431	5.79		3.19		1.9			181.634
186.205		13.395			5. 78		3.19		1.9			188-168
192.917		13.396			5.77		3.20		1.9			194.930
201.638		13.398			5.75		3.2		1.9			203.716

MACH NO = 20.00CONE ANGLE = 7.00 ANGLE OF ATTACK = 5.00 PLANE P / P FREE-STREAM AT ANGLES L/RN 0. 30. 60. 90. 120. 150. 180. S/RN 43.348 38.303 26.982 23.612 22.472 1.435 .864 45.328 32.225 1.061 41.07-6 39.273 34.684 29.189 24.491 21.494 20.486 1.533 36.049 31.811 26.800 22.579 19.923 19.034 1.912 1.338 37.724 1- 77 G 33.199 31.699 27.954 23.629 20.081 17.902 17.180 2.347 2.768 2.187 29.616 28.258 24.859 21.039 18.015 16.227 15.653 15.571 2.801 24.368 21.303 18.023 14.234 13.832 3.386 25.638 21.215 18.373 15.462 13.388 12.050 4.103 3.513 22.414 12.338 11.037 4.147 20.431 19.244 16.478 13.744 11.899 10.822 4.742 5.007 18.598 17.391 14.644 12.028 10.349 9.651 9.510 5.609 5.929 17.344 16.086 13.290 10.720 9.131 8.508 8.397 6.537 6.698 15.348 12.476 9.905 8.356 7.766 7.663 7.312 16.664 7.688 16.128 14.716 11.711 9.109 7.582 7.018 6.921 8.310 6.421 8.698 15.865 14.337 11.161 8.498 6.974 6.326 9.327 5.931 9.512 15.811 14.176 10.838 8.109 6.580 6.028 10.148 14.115 6.174 5.521 10.533 15.897 1-0.549 7.718 5.623 11.176 11.551 16.118 14.178 10.359 7.411 5.843 5.293 5.189 12.201 14.298 12.358 16.371 10.265 7.211 5.621 5.072 4.968 13.314 14.518 13.354 16.770 10.203 7.008 5.384 4.837 4.734 14.918 10.192 14.333 17.255 14.805 6.845 5.185 4,638 4.538 15.005 15.292 6.715 4.469 17.820 15.152 4.371 10.222 5.015 15.971 15.471 4.897 4.255 16.043 18.326 10.270 6.630 4.351 16.727 15.917 4.129 17.651 16.960 19.017 10.357 6.543 4.768 4.222 17.853 19.761 16.412 10.470 6.475 4.656 4.109 4.019 18.551 18.550 20.384 16.833 10.577 6.432 4.576 4.030 3.942 19.254 19.402 21.181 17.403 10.730 6.389 4.486 3.940 3.856 20.112 17.994 4.407 3.780 20.949 20.234 21.985 10.902 6.359 3.861 20.885 22.622 18.481 11.052 6.341 4.349 3.804 3.726 21.606 22.412 23.398 19.099 11.254 6.327 4.283 3.739 3.665 21.685 3.611 19.722 11.472 4.223 3.680 23.205 22.472 24.139 6.320 3.572 24.697 20.219 11.656 6.320 3.637 23.832 23.094 4.178 3.527 23.866 25.342 20.832 11.898 6.325 4.127 3.587 24.609 24.633 25.918 21.429 12.153 6.335 4.079 3.541 3.487 25.382 21.892 3.458 25.246 26.322 12.366 6.347 4.042 3.506 26.000 26.751 22.443 12.642 6.367 3.999 3.465 3.424 26.776 26.016 26.793 27.087 22.959 12.931 6.391 3.959 3.426 3.393 27.558 27.423 27.287 23.340 13.171 3.928 3.396 3.369 28.192 6.413 28.223 27.449 23.769 13.481 6.446 3.890 3.360 3.342 28.999 29.044 27.517 24.137 13.802 6.483 3.316 29.826 3.853 3.326 29.890 27.498 24.435 6.525 3.292 3.292 14.136 3.817 30.678 24.616 3.274 30.588 27.428 14.410 6.562 3.789 3.265 31.382 31.494 27.282 24.764 14.763 3.755 3.253 6.614 3.232 32.294 32.433 27.087 24.823 15.123 6.672 3.720 3.199 3.233 33,240 33.207 26.908 24.808 15.412 6.722 3.694 3.173 3.218 34.020 34.208 26.670 24.715 15.772 6.791 3.661 3.140 3.200 35.029

6.867

3.628

3.106

3.183

36.083

35.254

26.433

24.551

16.126

### NSHC/HOL/TR 75-45

МА	CH NO =	20.00	CONE ANG	LE = 7.0	0 ANGL	E-OF ATT	ACK =	5.00
		P /	P FREE-S	TREAM AT	PLANE	ANGLES		
L/RN	0.	30.	60.	90•	120.	150.	180.	S/RN
36.129	26.255	24.376	16.402	6.934	3.602	3.079	3.171	36.964
37.276	26.058	24.115	16.731	7.027	3.571	3.044	3.156	38.120
38.494	25.898	23.826	17.030	7.136	3.541	3.007	3.141	39.347
39.525	25.798	23.590	17.240	7.222	3.518	2.976	3.130	40.386
40.897	25.707	23.307		7.348	3.492	2.936	3.117	
42.368	25.651	23.056	17.593	7.491	3.468	2.894	3.103	
43.599	25.630	22.893		7.614	3.452	2.860	3.092	
45.207	25.623	22.737		7.780	3.436	2.816	3.078	
46.906 43.713	25.629 25.643	22.634 22.580	17.579 17.451	7.962 8.160	3.424 3.419	2.771 2.726	3.062	
50.250	25.657	22.566	17.318	8.331	3.419 3.419	2.690	3.045 3.030	
52.304	25.677	22.575		8.560	3.427	2.647	3.009	
54.531	25.699	22.603		8.802	3.443	2.504	2.985	
56.456	25.716	22.634		9.000	3.463	2.571	2.964	
59.068	25.729	22.680		9.244	3.496	2.531	2.934	60.275
61.833	25.732	22.732	16.432	9.463	3.539	2.495	2.906	62.861
64.123	25.729			9.611	3.578	2.469	2.872	65.169
67-087	25.720	22.821	16.232	9.756	3.633	2.440	2.835	
70:170	25.712	22.858	16.154	9.859	3.694	2.416	2.798	71.261
72.724	25.708	22.877		9.915	3.747	2.399	2.770	73.834
76.033	25.708	22.888	16.054	9.956	3.818	2.381	2.735	77.168
79.476	25.714	22.889		9.976	3.894	2.366	2.700	80.636
8.2.330	25.721	22.885		9.979	3.956	2.356	2.673	83.512
86.028	25.732	22.875		9.971	4.036	2.346	2.639	
89.877	25.745	22.865		9.949	4.116	2.338	2.608	
93.068	25.758	22.857		9.923	4.179	2.333	2.583	
97.201	25.774	22.847		9.880 9.828	4.256 4.329	2.330	2.554	
101.503 105.978	25.791 25.807	22.839 22.834		9.772	4.329	2.328 2.329		102.829
109.689	25.818	22.832	15.854	9.727	4.445	2.325		111.077
114.497	25.830	22.833		9.672	4.500	2.335		115.921
119.502	25.839	22.838	15.830	9.621	4.550	2.341		120.963
123.652	25.845	22.844	200	9.582	4.586			125.145
129.031	25.851	22.852	15.810	9.537	4.626	2.356		130.564
134.632	25.856	22.852	15.800	9.494	4.661	2.367		136.207
139.278	25.858	22.870	15.795	9.461	4.687	2.377		140.888
145.302	25.860	22.880	15.789	9.421	4.716	2.390		146.957
151.575	25.861	22.889	15.786	9.383	4.741	2.403	2.335	153.277
156.781	25.861	22.896	15.786	9.353	4.760	2.414		158.522
163.531	25.861	22.904	15.787	9.316	4.780	2.429		165.323
170.562	25.860	22.511	15.791	9.281	4.797	2.443		172.406
176.396	25.859	22.916	15.796	9.253	4.808	2-454		178.285
183-963	25.857	22.920	15.804	9.221	4.820	2.468		185.908
191.844	25.855	22.923	15.814	9.190	4.830	2.480		193.848
200.052	25.853	22.925	15.826	9.160	4.838	2.493	2.267	202.119

MA	CH NO =	25.00	CONE ANG	LE = 7.	00 ANGI	LE OF AT	TACK =	5.•-00
		D r	P FREE-S	TOFAM -A	T PLANE	ANGLES		
L/RN	0.*	30.	60•	90.	120.	150 •	180.	SZRN
LYKN	<b>0</b> •	3 U •	6U •	90•	1201	1700	1000	<b>37</b> /(**
<b>.</b> 864	70.370	67.282	59.435	49.977	41.826	36.604	34-829	1.435
1.061	63.764	60.959	53.818	45.274	37.968	33.314	31.745	1.633
1.337	58.506	55.903	49.317	41.532	34.977	30.852	29.470	1.911
1.767	51.424	49.094	43.283	36.574	31.072	27.687	26.566	2.344
2.296	44.480	42.411	37.265	31.541	27.065	24.447	23.615	2.877
2.927	38.477			26.962	23.304	21.338	20.756	
3.652	33.677		27.502	23.103	20.009	18.464	18.047	4.244
4.463	30.121	28.292	24.075	19.970	17.263	16.063		5.060
5.342	27.605		21.508	17.551	15.G52	14.049	13, 863	5.946
6.274	25.896		19.617	15.708	1.3.329	12.414	12.257	6.885
7.242	24.802			14.307	11.986	11.125	19.979	<b>7</b> -•860
8.232	24.177			13.233	10.934	10.100	9.961	
9.233	23.916	21.476	16.489	12.399	10.102	9.276	9.135	9.866
10.236	23.937	21.281	15.969	11.745	9.435	8 2 6 1 1	8.462	
11.235	24.173	21.286	15.611	11.227	8.891	8.071	7.917	
12.223	24.574	21.441	15.380	10.814	8-442	7.626	7-471	
13.194	25.115		15.245	10.482	8.067	7.254	7-102	
14.146	25.786	22.089	15.187	10-214	7.752	6.940	6.790	
15.075	26.584	22.554		9.996	7.483	6.672	6.525	
15.978	27.502	23.106		9.818	7.252	6.442	5.298	
16.855	28.528			9.674	7-052	6.243	6.102	
17.705	29.643	24.454		9∙55€	6.878	6.069	5.932	
18.529	30.825	25.234		9.462	5.725	5.917	5.784	
19.329	32.051	26.070		9.387		5.783	5.654	and the second s
20.106	33.296	26.952	16.064	9.328	5.457	5.663	5.539	_
20.863	34.537			9.284		5.556	5.437	
21.602	35.752	28.809		9. 251	6.258	5.459	5.346	
22.325	36.921			9.230	6.167	5.372	5.265	-
23.036	38.024		17.200	9.217		5.292	5.192	
23.738	39.044					5.218	5.125	_
24.433	39.964					5.149	5 • 065 5 • 009	
25.125	40.77.0			9 227		5.085		
25.816				9. 242		5.024	4.958 4.911	27274
26.511	41.996	35.202	19.058	9.264	5.740	4.967	4.866	-
27.212	42.402			9, 291	5.682	4.912	4.823	
27.923	42.665			9.324 9.361	5.625 5.570	4.859 4.807	4.783	
28.649	42.791			9.405	5.516	4.757	4.745	-
29.393	42.786		20.886	9.405	5.463	4.708	4.708	
30.160	42.650		21.395 21.927	9.509	5.410	4.658	4 • 673	_
30.954	42 • 427			9.570	5.358	4.610	4.64.0	_
31.774 32.616	42.110 41.734			9.637	5.306	4.562	4.608	
33-484	41.734			9.711	5.254	4.514	4.578	
34.386	40.909			9.793		4.466	4.550	
35.327	40.515			9.884	5.150	4.416	4.523	4.8 %
37.361	40.002.5	010346	C 44150	24 004	75,270	10720	,20	7 - 7 <b>- 7</b>

!	MACH NO =	25. 00	CONE A	NGĻE	=	7:•.00	; i	ANGLE	0F	ATT	ACK =	5.00
		P /	P FREE	STR	FAM	AT	-DI	ANE	ANGL	EC.		
L/RI	· 0 •	30.	60		90		12		150		180.	S/RN=
•		337		•	,,	•	10	•	190	•	100.	2)KN-
36.11	2 40.230	37.607	25.16	8	9.96	5	5.1	n <b>g</b> -	4.37	<b>'</b> 6	4.502	36.947
37.14	39.922	37.132	25.69		0.07		5.0		4.32		4.477	
38.22	7 39-677	36.622	26.18		0.20		5.0		4.27		4.454	39.078
39.38	39.497	36.112	26.61		0.35		4.9		4.21		4.431	40.243
40.61	5 39.382	35.633	26.94				4.9		4.15		4.410	41.485
41.90	1 39.330	35.225	27.17		0.470		4 . 8		4.09		4.389	42.779
43.23	2 39.323	34.900	27.27		0.90		4.8		4.03		4.368	44.121
44.62	1 39.342	34.661	27.25		1.13		4.7		3.96		4.347	45.520
46.07		34.509	27. 13		1-38		4.7		3.89		4.325	46.988
47.61		34.434	26.91	4 1	1 - 57	3	4.7		3.83		4.300	48.539
49.25		34.424	26.62	7 1:	1 • 98		4.7		3.76		4.274	50.187
51.00		34.462	26.29	4 1	2.33		4.71		3.69		4.245	51.950
52.886		34.531	25.94	1 1	2.72		4.7		3.63		4.212	53.647
54.92		34.618	25.59	0 1	3.12	5	4.75		3.56		4-174	
57-14		34.714	25.26	1 1	3 • 53	7	4.7	42	3.49		4.130	
59.579		34.816	24.96		3,93	5	47		3.43		4.080	
62.242		34.923	24.72		4 • 2.9	4	4.8	26	3.37		4.025	63.273
65.04		3.5.0.25	24.55		4.58		4:0-81	36	3.31	8	3.965	66.093
67.946	-	35.103	24.42		4.78	7	4.9	55	3.27	0-	3.903	69.020
70.966		35.151	24.33		4 - 91		5.03		3.22	7	3.840	72.062
74 - 103		35.16.9	24.27		4.99		5.17		3.18	9	3.779	75.224
77365		35-162	24.21		5.• 02		5 • 2		3.15		3.720	78.510
80.756		35.140	24.17		5.02	-	5.34	-	3.13		3.662	81.926
84 - 281		35 • 114	24.13	-	++:99		5.46	-	3.10		3.606	85 - 478
8794.6		35.088	24.10		4.94	-	5.59		<b>3.</b> 08		3.551	89.170
91754		35.062	24.08		+-86	-	5.7		3.06		3-498	
95.713	-	35.039	24.07		+ • 76		5.86		3.05		3.447	96.995
99 - 82.6		35 • 0.20	2.4.•:06		4 • 64		5.99	-	3.04			101-140
104-101		35.008	24.05		+• 52	-	6 • 11		3.03			105.447
108-544	-	35.004	24.03	_	4.41		6.22		3.02			109.923
113.163		35 008	24.02		+-31		6.32		3.02		3 • 267	114.577
122-956		35.018	24.00		+• 23	-	6 - 41		3.02			119.414
	-	35.032		-	+•15		6.49		3.02			124.444
128 • 147 133 • 546		35.049	23.97		• 0.8		6.56	-	3.02			129.674
139 • 162		35.066	23.96		••01	=	6.62		3.03			135.113
145.004	–	35.083	23.95		94		6.58		3.03			140.771
151.082		35.101	23.94		88	-	6.72	-	3.05			146.657
157.406		35 • 117	23.94		8.82		6.78		3.06			152.781
163.985		35-131 35-142	23.94		76		6.79		3.07			159.152
170 . 831		35.151	23.94		5 • 71 • • •		6 - 82		3.09			165.781
177.953		35.158	23.95 23.96	-	65		6 • 84		3.10			172.677
185.363		35.150	23.97		5 · 60		6 - 86		3.12			179.853
193:072		35.166	23.99	-	3.56 3.51		6 • 87		3.14		-	187.319
201.093		35.16?	24.01				6.89		3.16	-	-	195.086
-:0:7 4:0:5:0	U-J • 1 J-3	OSTITUE	C-TOUL	) <u>1</u> 3	5-47	U	6.89	77 3	3.17	7	<b>∠ • 055</b>	203.167

M/	4CH NO =	30.00	CONE AN	GLE = 7	.00 ANGI	LE OF AT	TACK =	5.00
		Р/	P FREE-S	STOFAM A	AT PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150 •	180.	SZRN
	•	30 •	00*	50 €	150.	190 •	100	37-1511
.865	100.967	96.534	85.257	71.674	59.966	52.464	49.913	1.435
1.124	89.617	85.650	75.574	63.572	53.360	46.867	44.685	1.696
1.414	81.913	78.254	69.026	58.162	49.047	43.325	41.414	1.988
1.863	71.647	68.379	60.253	50.925	43.332	38.700	37.175	2.440
2.411	61.841	58.906	51.688	43.754	37.622	34.093	32.983	2.993
3.059	53.500	50.783	44.256	37.368	32.310	29.634	28.857	3.646
3.800	46.944	44.329	38.186	32.014	27.733	25.635	25.081	4.392
4.795	41.338	38.713	32.720	26.978	23.266	21.697	21.369	5.395
5.693	38.183	35.471	29.426	23.844	20.376	19.014	18.773	6.300
6.635	36.067	33.212	27.001	21.456	18.127	16.870	16.655	7.249
7.607	34.742	31.692	25.220	19.635	16.369	15.176	14.977	8.228
8.595	34.023	30.730	23.917	18.229	14.988	13.821	13.628	9.223
9.589	33.775	30.199	22.97.2	17.130	13.889	12.730	12.529	10.225
10.779	33.944	29.993	22.192	16.112	12.843	11.690	11.477	11.424
11.761	34.374	3.0 • 08.9	21.765	15.451	12.142	10.996	10.780	12.413
12.726	35.011	30.367	21.491	14.920	11.559	10.419	10.204	13.386
13.672	35.835	30.792	21.337	14.489	11.070	9.933	9.722	14.339
14.595	36.841	31.349	21.276	14.137	10.655	9.519	9.312	15.268
15,492	38.027	35.035	21.291	13.849	10.299	9.165	8.961	16.172
16.361	<b>39.38</b> 0	32.836	21.370	1-3 • 61-1	9.993	8.860	8.659	17.048
17.368	41.194	33.952	21.537	13.382	9.676	8.546	8.350	18.062
18.176	42.832	34.996	21.729	13.228	9.448	8.320	8 • 1-29	18.876
18.958	44.551	36.128	21.965	13.103	9.246	8.121	7.935	19.665
19.716	46.319	37.334	22.240	13.002	9.065	7.944	7.764	20.428
20.452	48.103	38.600	22.552	12.922	8.902	7.786	7.613	21.170
21.168	49.873	39.91.0	22.896	12.860	8.755	7.643	7.478	21.890
22.003	51.935	41.521	23.349	12.806	8.595	7.490	7.334	22.733
22.684	53.571	42.881	23.758	12.776	8.473	7.374	7.228	23.418
23.353	55.103	44.241	24.192	12.757	8.361	7.268	7.131	24.092
24.013	56.510	45.589	24.652	12.749	8 • 256	7.169	7.043	24.757
24.666	57.770	46.912	25.137	12.749	8.158	7.076	6.962	25.415
25.316	58.865	48.197	25.647	12.758	8.066	6.98.9	6.886	26.070
26.096	59.943	49.669		12.778				
26.749	60.632	50.820	26.857	12.802	7.878	6.81.3	6.738	27.514
27.408	61.127	51.887	27.450	12.833	7.798	6.738	6.676	28.178
28.077	61.428	52.852	28.07-2	12.870	7.721	6.665	6.617	28.851
28.759	61.539	53.699	28.724	12.914	7.645	6.594	6.560	29.539
29.458	61.471	54.409	29.407	12.963	7.570	6.525	6.506	30.243
30.178	61.235	54.964	30.124	13.020	7 • 497	6.456	6 • 453	30.968
31.074	60.756	55.403	31.028	13.096	7 • 40 8	6.375	6.392	31.871
31.840	60.236	55.568	31.807	13.167	7.335	6.308	6.345	32.643
32.626	59.642	55.544	32.602	13.245	7.262	6.242	6.299	33.435
33.436	59.013	55.340	33.412	1-3-331	7-189	6.17.7	6 • 256	34.251
34.276	58.387	54.964	34.231	13.426	7.115	6.110	6.215	35.097
35.149	57.799	54.435	35.050	13.533	7.041	6.043	6.176	35.977

### MSHC/WOL/TR 75-45

MAI	CH NO =	30.00	CONE AND	SLE = 7.	00 ANG	LE OF ATT	ACK =	5 • · U U
					- 04 415	ANCI: CC		
	_		P FREE-S		T PLANE		4 9 0	S/RN
L/RN	0.	30•	60•	90•	120.	150.	180.	3/KII
		63 61 A	76 047	47 679	6 060	5.960	6.131	37.088
36.252	57.180	53.641	36.017	13.678	6.950	5.889	6.096	38.067
37.224	56.757	52.890	36.787	13.817	6.874	5.815	5.062	39.102
38.251	56.429	52.107	37.497	13.976	6.798	5.737	6.031	40.200
39.341	56.200	51.338	38 - 115	14.159	6.722	5.757 5.656	5.001	41.355
40.487	56.070	50.633	38.601	14.368	6.648	5.573	5.973	42.542
41.665	56.030	50.041	38.926	14.600	6.578	5.470	5 <sub>+</sub> -939	44.019
43.131	56.052	49.486	39.086	14.915	6.501		5.911	45.303
44.405	56.109	49.163	39.036	15.214	6.443	5.381	5.881	46.645
45.738	56.178	48.961	38.835	15.553	6.392	5.290	5.848	48.058
47.140	56.252	48.871	38.504	15.934	6.350	5.197	5.814	49.553
48.624	56.328	48.875	38.071	16.365	6.317	5.103		51.145
50.204	56.406	48.948	37,567		6.293	5.009	5.775	52 • 851
51.897	56.486	49.068	37.028	17.382	6.280	4.914	5.732	
54.106	56.574				6.280	4.799	5.672	55.076
56-117	56.624				6.294	4.704	5.612	57.103
58.311	56.638				6.322	4.610	5.544	5-9.313
60.714	56.610				6.364	4.519	5-468	61.734
63.351	56.552				6.423	4.432	5.384	64.391
66.139	56.494	-	~		6.497	4.353	5.295	67 • 199
69.624	56.446			-	6.605	4.268	5.182	70.711
72•653	56.430				6.713	4.207	5::088	73.762
75.799	56.433				6.840	4.153	4.997	76.932
79.069	56.447				6.986	4.106	4.910	8.0 • 226
82•466	56.470				7.150	4.065	4.826	83.649
85•996	56.505				7.328	4.030	4.743	87 - 205
90.412	56.558	-			7.555	3.993	4.646	91.655
94.248	56.607				7.753	3.966	4.569	95.520
98 • 232	56.652				7.950	3.943	4-496	99.533
102.369	56.689				8,140	3.923		103.702
106.666	56.717				8.317	3.906		108.031
111.129	56.737					3.892		112.528
115.766	56.751					3.879		117.200
121.570	56.763				8.782	3.868		123.047
1-26.615		49.949						128.130
131.859	56.770		•		8.990	3.860		133.413
137.311	56.771				9.072	3.862		138.906
142.979	56.770					3.867		144.616
148.871	56.769				9.199	3.875		150.553
156.253	56.769					3.888		157.990
152.674	56.769					3.902		164.459
169.350	56.769	-		_		3.918		171.186
176.292	56.768		,			3.936		178.180
183.509	56 • 765					3.956		185-451
191.014	56.762				9.384	3.976		193.012
200.413	56.757	50.126	34•008	1:8.715	9.392	4.002	3.660	202-482

MA	CH NO =	3.50	CONE ANG	LE = 8.0	00 ANGL	E OF ATT	ACK =	5.00
		- 4	0 5055 0	TOTAL AT	r PLANE	ANGLES		
	_			TREAM AT	120 •	150 •	180.	S/RN
L/RN	0 •-	30•	60•	90•	TČU	1500	2000	27.77
01.4	0 407	2.104	1.900	1.648	1.423	1.275	1.224	1.411
.841	2.183	2.018	1.820		1.361	1.220	_	1.502
•931	2.095	2.012	1.814	1.572	1.358			1.551
.980	2.089	1.994	1.796	1.555	1.344			1.718
1.145	2.071	1.985	1.787		1.338			1.845
1.271	2.062	1.963			1.320		1.155	2.062
1.486	2.039 2.018	1.942	1.749	•	1.321	-	1.153	2.226
1.648		1.904			1.303		1.147	2.502
1.921		1.874			1.288	1.177	1-140	2.708
2.463		1.827		1.433	1.265		1.128	
2.710	1.876	1.802			1.251	1.154	1.122	
3.116	1.844	1.770		1.381	1.228	1.141	1-114	3.709
3.416	1.826	1.753		1.365	1.213	1.131	1.107	4.006
3.887		1.732		1.344	1.192	1.116	1.096	
4.228		1.722		1.332	1.182	1.107	1.089	
4.776		1.714		1.318	1.171	1.099		
5.166		1.711		1.311	1.166	1.096		
5.787		1.712		1.303	1.160	1.095		
6.225		1.714		1.301	1.158	1,095		_
6.919	1.805	1.720		1.299	1.155		_	
7.406	1.812	1.725	1.512		1.155			
8.17-3	1.823	1.735		1.300				
8.710	1.832	1.741	1.520	1.301		1.103		
9.552	1.844	1.752		1.305	1.161	1.108		
10.138		1.759	1.531			1.112		
11.056		1.769	1.538			1.117		
11.693	1-872	1.776				1.121	1.115	12.370
12.687	1-883	1.786				1.127	1.121	
13.376		1.792				1.130	1.125	
14.449					1.181	1.136	1.131	
15.192	1905				1.185	1.139 1.143		
16.346			and the same of th		1.183 1.187	1.143		
17.143		1.818		1.334	1.103	T • T + D.	4 447	19.123
18.381		1.824		1.338		1.120	1.150	19.986
19.235		1.828	1.582		1.194	1.152	1-153	21.324
20.560		1.833			1.197	1.155 1.157	1.155	22.246
21.473		1.837			1-198		1.157	23.676
22.889		1.841			1.201	1.159 1.161	1.159	24.661
23.865					1.202	1.163	1.161	26.188
25.377		1.847			1.204 1.206	1.164	1.162	27.240
26.419		1.849			1.200	1.166	1.163	28.870
28.033					1.209		1.164	
29.144					1.210	1.168	1.165	31.732
30.867					1.211	1-168	1.166	
32.054	1.959	1 • 85	0 1.00	, 1001	~ T ~ ~ ~			-

MA	CH 40 =	3.50	CONE ANG	tE = 8.	OU ANGL	E OF A	TTACK =	5.00
		5.4			_			
L/RN	0.		P FREE-S		T PLANE	ANGLE		
LZKN	U •	30•	60.	90•	120.	150.	180-	S/RN
33.893	1.960	1.860	1.612	1. 363	1.212	1.169	4 4'67	7/ 700
35.161	1.961	1.862	1.613	1.364	1.213	1.170		
37.126	1.963	1.863	1.615	1.366	1.215	1.171	1.167	
38.481	1.964	1.864	1.616	1.367	1.215	1.171		
40.584	1.965	1.866	1.618	1.368	1.216	1.172	1.169 1.169	
42.034	1.965	1.866	1.619	1.369	1.217	1.173	1.170	
44.286	1.966	1.867	1.620	1.370	1.218	1.173		
45.840	1.966	1.868	1.621	1.375	1.219	1.173		
48.255	1.967	1.869	1.623	1.372	1.219	1.174		
49.922	1.967	1.870	1.623	1.372	1.220	1.174		
52.513	1.968	1-870	1.625	1.373	1.221	1.175		
54.302	1.968	1.871	1.625	1.374	1.221	1.175		
57.085	1.968	1.871	1.627	1.375	1.222	1.175	1.172	
59.007	1.968	1.872	1.627	1.375	1.222	1.176	1.172	
61.997	1.968	1.872	1.628	1.376	1.223	1.176	1.172	
64.•.063	1.968	1.872	1.623	1.376	1.223	1.176	1.172	
67.276	1.969	1-873	1.630	1.377	1.224	1.176	1.172	
69.498	1.969	1.873	1.630	1.377	1.224	1.177	1.172	70.742
72.952	1.969	1.873	1.631	1.377	1.224	1.177	1.172	74.231
75.341	1.4969	1.373	1.632	1.378	1,225	1.177	1.172	
79.056	1.969	1.873	1.633	1.378	1.225	1.177	1.173	
81.625	1.969	1.874	1.633	1.379	1.225	1.177	1.173	
85.620	1.969	1.874	1.634	1.379	1.225	1.178	1.173	
88.383	1.969	1.874	1.634	1.379	1.226	1.178	1.173	
92.680	1.969	1-874	1.635	1.380	1.226	1.178	1.173	
95 • 65.2	1.970	1.374	1.635	1.380	1.226	1-178	1.173	
100.275	1.970	1.874	1.635	1.381	1.226	1.178		101.822
153.471	1.970	1.874	1.635	1.381	1.227	1,178		105.050
108-444	1.970	1-874	1.636	1.381	1.227	1.178	1.173	110.072
111.883	1.970	1.874	1.636	1.382	1.227	1.178		113.544
117.233	1.970	1.874	1.636	1.382	1.227	1.179		118.947
120.932 126.688	1.970	1.874	1.636	1.383	1.227	1.179		122.683
	1.971	1-874	1.636	1.383	1.227	1.179		128.495
130.668 136.860	1.971	1.874	1.036	1-384	1.227	1.179		132.514
141.142	1.971	1-874	1.635	1.384	1.227	1.179		138.767
147.805	1.971 1.971	1.874	1.636	1.384	1.228	1.179		143.091
152-412	1.971	1.874	1.636	1.385	1.228	1.179		149.819
159.580	1.971	1.874	1.636	1.385	1.228	1.0179		154.471
164.537	1.972	1.874 1.874	1.636	1.386	1.228	1.179		161.710
172.249	1.972	1.874	1.635	1.386	1.228	1.179		166.715
177.583	1.972	1.87.4	1.635 1.635	1.386	1.228	1.180		174.504
185.881	1.972	1.874	1.035	1.386	1.228	1.180		179.890
191.620	1.972	1.87.4	1.635	1.387	1.228	1.180		188.270
200.549	1.972	1-87-4	1.635	1.387 1.387	1.228	1.180		194.065
	/-	T 4-01-4.	# = 005	T4-201	1.228	1.180	1.17.3	203.052

	MACH	NO =	5.00	CONE	ANGL	E =	: 8	.00	ANGLE	OF	ATT	FACK	=	5.00	1
			D /	D E	REE-ST	RFA	M A	ΔT	PLANE	ANGL	.ES				
1 /	o N	Ó.	30 •	-F 11	60 •	,,,,	98•	•	120.	150		1	80.	5	<b>IRN</b>
L/	KIA	U •	304		00 0		•••								
• 81	53	3.603	3.460	3	894	2.	646		2 • 25 3-	1.99			910		424
.9	-	3.494	3.353		991		552	;	2.169	1.98		1.			519
1.0		3.452	3.315		961	2-	531	;	2.158	1.91			833		631
1.2		3.352	3.217		871	2	457	;	2.101	1.87			795		830
1.4		3.229	3.098		. 764	2	367		2.030	1.81			746		071
1.6		3.137	3.008	2	683	2	300		1.978	1.77			709		254
1.9		2.993	2.868	2	555		191		1.892	1.7			650		566
2.3	•-	2.845	2.725	2	• 422		<b>-078</b>		1.895	1.6			590		919
2.7		2.722	2.600	2	.301		972		1.719	1.5			531		312
3.0		2.651	2.529		. 232		909		1.664	1.5			490		.597
3.4		2.563	2.441		. 143		. 826		1.589	1.4			429		.059 E64
3.9		2.498	2.373		.071		• 755		1.525	1.4			374		•561 •103
-4.4	97	2.455	2.326		.016		697		1.471	1.3			329		• 103 • 486
4.8	76	2.436	2.304		• 987		• 665		1.440	1.3			303 271		.091
5.4		2.421	2.283		. 956		-627		1.481	1.2			243		.734
6.1		2.419	2.275		.936		•599		1.370	1.2			220		.413
6.7	84	2.428	2.278		•925		-579		1.347	1.2			208		.886
7.2		2.439	2.285		•923		•569		1.335	1.2			194		.625
7.9		2.462	2.301		•924		• 559		1.320	1.2			185		.401
8.7		2.490	2.322		.931		•554		1.311	1.2			179		.213
9.5		2.522	2.347		.942		• 553		1.300	1.1		1.	177		.065
10.4		2.556	2.376		• 956		• 555 • 558		1.299	1.1			176		655
10.9		2.579	2.395		.• 967 .• 985		. 563		1.299	1.1			177		.574
1-1 8		2.614	2.425		. 907		· 570		1.300	1.1			18		.537
12.8		2.648	2.455		.023		.578		1.303	1.2			184		.546
13.8		2.681	2.503		.036		-584		1.305	1.2			187		.246
14.9		2.701	2.529	-	. 055		593		1.308	1.2			193		.327
15.6		2.730 2.756	2.554		2.073		•60		1.312		212	1.	.191		.437
16.7		2.780	2.576		090		618		1.317		217	1 :	.204	4 18	•576
17.08 18.0		2.794	2.590		2.101		-618		1.319		220	1	.20		352
19.		2.812	2.608		2.116		627		1.324	1.2	225	1	. 214		.541
20.		2.829	2.625		2.130		. 639		1.328	1.2	230	1.	. 22		.759
22.		2.844	2.639		2.143	1	64	3	1.332	1.2	234		. 22		• 007
23.		2.852	2.64		2.151		1.649		1.335	1.2	237	1	.23		.857
24.		2.864	2.66		2.163		65		1.339	1.2	241		• 23		.157
25.		2.374			2.173		1.66		1.343	1.8	245		. 24		.491
2.7-		2.883	2.68		2.182	1	L.67	0	1.347		249		. 24		•860
28 •		2.890	2.68	-	2.191	1	L. 67	6	1.351		252		. 24		267
29.		2.894	2.69		2.196	:	1.68	0	1.353		254		• 25	,	227
30.		2.899	2.70		2.204		1.68		1.357		257		• 25		1.703
	344	2.903	2.70		2.211		1.69		1.360		259		• 25		3.224
	899	2.906	2.71	1	2.217		1 • 69		1.354		262		• 26		4.794 = .970
	964	2.908	2.71		2.221		1.69		1.366		264		· 26		5 • 87·0 7 • 529
-5	607	2.910	2.71	7	2.226	:	170	4	1.369	1•	266	1	• 26	υ 3 <sup>°</sup>	1-4ン6ブ

	MACH	NO =	5.00	CON	ANGL	E =	8.00	) A	NGLE	0F	ATT	ACK =	5.00
			5 4	d -	CC- CT	DEAM	AT	PLA	NE	ANGL	- 50		
	<b>n</b> & L	0	30.	וז א	REE-ST 60.		0. 0.	120	. –	150	_	180.	S/RN
L/	KN	0 •	30 •		<b>50</b> •	9	<b>.</b>	120	•	150	•	1000	37 ((1)
38.3	n 6	2.911	2.720	2	. 231	1.7	8.0	1.37	72	1.26	58	1.268	39.245
40.0		2.912	2.722		. 236	1.7		1.37		1.27		1.270	41.021
41.2		2.912	2.723		. 239	1.7		1.37	77	1.27	71	1.271	42.240
43.1		2.91.	2.724		. 243	1.7	18	1.38	30	1.27	73	1.273	
45.0		2.913	2.725	2	. 247	1.7	21	1.38	32	1.27		1.274	
47.0	70	2.913	2.726	2	251	1.7	23	1.38		1.27		1.275	
48.4	45	2.913	2.726		• 253	1.7		1.38		1.27		1.276	49.483
50.5	71	2.913	2.726		• 256	1.7		1.38		1.27		1.277	
52.7		2.912	2.727		• 259	1.7		1.39		1.27		1.278	53.856
55.0		2.912	2.727		• 262	1.7		1.39		1.28		1.278	56.165
57.4		2.912	2.727		• 264	1.7		1.39		1.2		1.279	
59.0		2.911	2.727		• 266	1.7		1.39		1.2		1.279	
61.5		2.911	2.727		• 267	1.7		1.39		1.2		1.280	
64.2		2.911	2.727		• 269	1.7		1.39		1.2		1.280	65.394
66•9		2.911	2.727		. 270	1.7		1:45		1.2		1.281	
68.7		2.910	2.727		. 270	1.7		1.40		1.2		1.281	
71.6		2.910	2.726		. 271	1.7		1.40		1.2		1.281	
74.6		2.910	2.726		• 271	1.7		1.41		1.2		1.281	
777		2.911	2.725		• 272		48	1.4		1.2		1.282 1.282	
79.9	-	2.911	2.725		• 272		50 52	1.4		1.2		1.282	
83.2		2.911	2.725	2	. 271			1.4		1.2		1.282	
86.6		2.911	2.724 2.724	2	.271		54 56	1.4		1.2		1.282	
90 • 2		2.912	2.724		.270		58	1.4		1.2		1.283	
92 • 6 96 • 4		2.912	2.723		.270	1.7		1.4		1.2	_	1.283	
100.3		2.913	2.723		. 269	17		1.4		1.2			101.935
184.4		2.913	2,723		. 268		63	1.4		1.2			106.057
108.7		2.914	2.723		. 267	1.7		1.4		1.2			110.335
111.6	-	2.914	2.723		. 267	1.7		1.4		1.2			113.277
116.1		2.914			. 266	1.7		1.4		1.2			117.829
120.8		2.915			. 265	1.7		1.4		1.2			122.553
125.6		2.915			. 265	1.7		1-04		1.2		1.284	127.456
128.9	-	2.916	2.723		. 264	1.7		1.4		1.2		1.284	130.828
134.1		2.916	2.723		. 263	1.7		1.4	1.1	1.2	95	1.284	136.045
139.5		2.916	2.723		. 262	1.7		1.4		1.2		1.284	141.460
145.0	-	2.917	2.723		. 262	1.7		1.4		1.2	96		147.080
148-		2.917	2.723		- 261	1.7	71	14	13	1.2	9.6	1.284	150.945
154.8		2.917	2.723		. 261	1.7	72	1.4	13	1.2	96		156.926
160.		2.918	2.723		.260	1.7		1.4	14	1.2			163.134
167.		2.918	2.724	1 2	259	1.7		1.4		1.2			169.578
171.7		2.918	2.724		259	1 • .7		1.4		1.2			174.010
1-7-8 - 5		2.918	2.724		• 259	1.7		1.4		1.2			180.868
185.6		2.918	2.724		258	1.7		1.4		1.2			187.987
192	319	2.918	2.724		258	1.7		1.4	_	1.2			195.377
200 •	516	2.918	2.724	+ 2	2.257	1.7	771	1.4	1-8	1.2	9.7	1.284	203.049

	MACH	NO =	10.00	CON	Ε	ANGL	Ε :	•	8.00		ANGLE	0F	AT.T	ĄCK	=	5.00	
			D /	D E	D F	E-S1	PE	м	ΔT	p	LANE	ANGL	FS				
L/F	N	8•		г			1/6	`90			20.	150		1.8	30.	S/R	١
C)	XIII	•	00.0		•	, , ,		,,	•	•			, •	-			•••
.86	51 1	1.098	11.485	10	. 1	.77	8.	-59	5	7.	225	6.34	13	6.0	142	1.43	31
1.00		1.614				345		30			982	6.13		5.8		1.57	
1.19		1.081				189		94			714	5.93		5.6		1.76	
1.48		0.242				668		34			231	5.53	34	5.3	302	2.06	55
1.84		9.355			٠ ٤	396	6	69	7	5.	71-5	5.11	L 4	4.9	915	2.42	22
2.25	55	8.491	8.103	7	• 1	.35	6	05	1	5.	197	4.69	94		532	2.83	
2.60	3	7-918	7.535			06		59			823	4.38			254		
3.11	18	7.259				999		05			360	3.98			375		
3.68		6.742				192		. 59			955	3.6			532		
4.30		6.356				192		21			607	3.3			241	4.90	
4.98		6.085				784		90			317	3.0			987		
5.47		5.943				503		. 71			136	2.87			317		
6.19		5.824				120		51			935	2.6			522		
6.93		5 - 770				288		. 35			772	2.5			463		-
7.68		5.770				197		. 23			640	2.39			333	8.32	
8 • 4		5 . 814				L40		. 13			533	2.2			225	9.10	
9.04		5::871				116			2		465	2.2			155 075	9.69 10.48	
9.82		5-973				103		02			390	2.13			008	11.28	
10.62		6.099				LD9		• 97 • 94			32.7	2.0			952	12.09	
11.41		6.244				131 167		92			27-6 23:3	1.9			305	12.90	
12.21 12.83		6.402				200		91			205	1.9			<b>375</b>	13.50	
13.62		6.701				253		90			174	1.8			840	14.32	
14.43		6.878				314		90			147	1.8			811	_	
15.24		7-058				381		90			125	1.8			786	15.95	
16.04		7.236				+53		-91			10.7	1.8			765	16.75	
16.89		7.409				528		92			891	1.8		-	747		
17.40		7.535				587		93			081	1.7			736	18.20	
18.2		7-699				567		. 94			070	1.7			722		
19.10		7.845				749			7		061	1.7			711	19.85	
19.9		7.983				332		. 98			053	1.7			701	-	-
20.77		8-108				916		. 01			047	1.7			693		
21.4		8.193				978	_	. 02			043	1.7			688		_
22.2		8.292				062		. 0 :			040	1.7			683	23.05	55
23,16		8 - 375				144	-	. 0 8			037	1.7		1.0	678	23.95	50
24.0		8-439				225		-11			035	1.7		1.0	675	24.87	71
25.0		8.48			5.	305	3	.14	+5	2.	034	1.7	11	1.6	673	25.82	23
25.7		8.507			5.	364	3	.17	0	2	034	1.7	8 0		673	26.56	
26.7	56	8.522	2 7.714		5.	440	3	. 20	15		034	1.7			672	27.5	
27.83	11	8.522		9	5•!	514	3	. 24	+1		036	1.7			673	28.6	
28.9	19	8.512				585		. 27			039	1.6			675	29.7	
30.0		8-49				653		•-3:			• 043	i.6			677	30.9	
31.0	06	8 - 480				701		. 3!			046	1.6			679	31.8	
32.2		8 - 459				761		• 38			052	1.6			683	33.1	
33.6	64	8 - 438	3 7.744	}= <b>!</b>	5•	815	3	. 4;	30	2	059	1.6	90	1.1	687	34-5	56

	MACH NO =	10-+00	CONE ANGL	.E = 8.0	0 ANGL	E OF AT	TACK =	5.00
			P FREE-ST			ANGLES		
L/R	N 0.	30.	60.	90•	120.	150•	180.	SZRN
25 44	0 0 / 4 7	7 700	E 06:0	7 (70	0.00	4. 600	4 600	76 006
35.11		7.720	5.862	3.472	2.068	1.688	1.692	36.026
36.57		7.696	5.899	3.513	2.078	1.687	1.697	37.593
38.32		7.673	5.926 5.070	3.554	2.091	1.686	1.703	39.267
39.64		7.657	5.938	3.584	2.101	1.685	1.707	40.596 42.431
41.46 43.34		7-639	5.946	3.623	2.116	1.684	1.712	44.337
45.31		7.625 7.613	5.947 5.941	3.660 3.696	2.132 2.150	1.684 1.684	1.720	46.317
47.34		7.604	5.932	3.730	2.168	1.685	1.723	48.374
48.92		7.598	5.923	3.755	2.182	1.686	1.725	49.969
51.10		7.591	5.923 5.911	3.787	2.201	1.688	1.727	
53.36		7.587	5.898	3.817	2.223	1.690	1.729	54.448
55.70		7.585	5.090 5.885	3.844	2.240	1.693	1.730	56.817
58.14		7.583	5.872	3.869	2.258	1.697	1.731	59.277
60.03		7.583	5.862	3.886	2.272	1.700	1.731	61.183
62.63		7-582		3.905	2.289	1.704	1.731	
65.33		7.583	-	3.921	2.304	1.709	1.730	66.535
68.13		7.583		3.933	2.319	1.715	1.730	69.365
71.04	_	7583	5.817	3.943	2.333	1.720	1.729	72.302
73.29		7.583	5.809	3.949	2.342	1.725	1.728	74.579
76.40		7-•583	5.800	3.954	2.354	1.731	1.727	77.715
79.62		7.584	5.792	3.957	2.365	1.737	1.725	80.972
82.97		7.584	5.784	3.959	2.376	1.744	1.724	84.352
86.45		7.585	5.777	3.959	2.387	1.750	1.723	87.863
90.06		7.586	5.770	3.958	2.397	1.756	1.722	
92 - 85		7.586	5.765	3.956	2.404	1.761	1.722	
96.71		7.587	5.760	3.953	2.414	1.767	1.721	98.226
100.71		-7-∙588	5.754	3.949	2.424	1.773	1.720	102.269
104.87	5 8.369	7.590	5.749	3.944	2-433	1.779	1.720	186.467
109.19	3 8.371	7.591	5.745	3.939	2.441	1.784	1.720	110.828
112.54		7.592	5.742	3.935	2.448	1.788		114.208
117.15		7.594		3.929	2 • 456	1.793		118.867
121.94				3.923	2 • 463	1.798		123.706
126.92		7.597		3.917	2 4 4 7 0	1 • 8.0.2		128.733
132.09				3.910		1.805		133.954
136.10		7.600	5.731	3.906	2.481	1.808		138.003
141.63	-	7.601	5.730	3.899	2 • 486	1.811		143.584
147.37		7.603	_	3.893	2.491	1 • 81 4		149.381
153.33		7.604	5.729	3.887	2.495	1.817		155.405
159.53	-	7.605	5.729	3.881	2.498	1.819		161.662
164.33		7,606	5.730	3.877	2.501	1.821		166.515
170.96		7.607	5.731	3.871	2.504	1.823		173.205
177 -84		7-608	5.732	3.865	2.506	1.825		180.156
184.99		7,609	5 - 7-34	3.860	2.508	1.827		187-377
192.42		7-609	5.736	3.855	2.509	1.828		194.880
200.14	7 8.380	7-610	5.738	3.850	2.510	1.83,0	1.730	202.676

MACH NO = 15.00 CONE ANGLE = 8.00 ANGLE OF ATTACK = P / P FREE-STREAM PLANE AT ANGLES L/RN 0. 30. SARN 60. 90. 120. 150. 180. 26.127 24.994 -861 22.107 18.625 15.616 13.581 13.025 1.431 24.820 23.745 21.006 17.716 1.057 14.889 13.078 12.466 1.630 23.018 22.007 19,449 1.321 16.421 13.869 12.261 11.723 1.896 1.638 21.009 20.071 17.723 14.992 12.728 11.323 10.855 2.216 2.113 18.508 17.662 15.546 13.156 11.252 10.117 9.749 2.696 2.556 16.712 15.896 13.917 11.767 9.197 8.908 3.143 10.124 3.185 14.839 14.063 12.210 10.267 7.851 8.838 8.074 3.779 3.744 13.681 12.907 11.089 9.248 7.953 7.294 7.108 4.343 6.326 4.502 12.617 11.824 10.001 8.217 7.019 6.464 5.108 5.147 12.025 11.201 9.341 7.569 5.780 6.411 5.897 5.759 5.988 11.542 10.665 8.728 6.937 5.804 5.313 5.203 6.608 6.680 11.320 10.390 8.369 6.545 5.415 4.938 4.830 7.308 7.561 11.205 10.194 8.046 5.025 4.555 4.452 6.164 8.198 8.274 11.218 10.135 7.868 5.926 4.774 8.917 4.303 4.201 9.167 11.338 10.156 7.722 5.693 4.518 4.042 3.937 9.819 9.880 11.501 10.234 7.655 5.546 4.350 3.870 3.762 10.539 10.767 11.767 10.392 7.620 5.403 4.174 3.690 3.581 11.435 12.021 10.556 5.314 11.471 7.625 4.057 3.570 3.459 12.145 10.799 12 - 339 12.379 7,662 5.228 3.933 3.441 3.331 13.023 5.176 13.024 12.697 11.018 7.713 3.849 3.353 3.244 13.714 13.867 13.128 11.320 7.797 5.127 3.759 3.257 3.149 14.565 14.529 13.497 11.583 5.100 7.879 3.697 3.191 3.083 15.233 11.934 7.996 3.118 15.342 13.980 5.076 3.630 3.011 16.054 15.980 12.230 14.376 8.100 ·5. 166 3.583 3.067 2.961 16.699 14.875 12.614 16.765 8.242 5.060 3.532 3.010 2.905 17.492 5.062 17.383 15.270 12.929 8.365 3.496 2.970 2.866 18.116 8.527 18.146 15.748 13.326 5.069 2.924 3.456 2.821 18.886 18.750 16.114 3.428 2.891 13.644 8.665 5.080 2.789 19.496 16.542 19.499 14.036 8.845 5.098 3.396 2.854 2.754 20.253 20.096 16.857 14.341 8.995 5.116 3.374 2.828 2.728 20.856 20.843 17.210 14.709 9.190 5.143 3.348 2.797 2.699 21.610 9.391 21.593 17.512 15.057 5.174 3.325 2.769 2.674 22.367 22.198 17.714 15.317 9.557 5.202 2.748 3.308 2.655 22.979 23.753 22-965 17.915 15.615 9.769 5.240 3.289 2.725 2.635 23.590 18.033 15.828 9.942 5.274 3.274 2.707 2.620 24.383 24.388 16.059 18.129 10.162 5.319 3.258 2.686 2.603 25.189 25.043 18.156 16.212 10.340 5.359 3.246 2.670 2.591 25.851 25.888 18.168 16.360 10.564 5.413 3.231 2.578 2.651 26.705 16.441 2.568 26.589 18.139 10.744 5.459 3.221 2.637 27.412 27.500 16.497 18.074 5.522 2.55? 10.969 3.208 2.619 28.333 28.261 16.505 18.005 11.145 5.576 3.199 2.606 2.550 29.100 11.359 2.542 29 - 247 17-904 16.475 5.648 3.188 2.589 30.097 30.070 17.818 16.424 11.522 5.710 3.180 2.576 2.536 30.928 31.148 17.709 16.332 11.711 5.793 2.560 2.531 3.171 32.016

5.864

3.165

2.547

2.527

32.932

11.847

16.242

32.055

17.628

MACH NO = 15.00 CONF ANGLE = 8.00 ANGLE OF ATTACK = 5.00

1.	AUN 110 -	19.00	CONT ANOL	0.0	U ANGL	C OI MII	AUK -	<b>7.00</b>
		D /	P FREE-ST	DEAM AT	PLANE	ANGLES		
L/RN	0.	30.	60+	90.	120.	150.	180.	S/RN
LYKI	9 •	30 •	00 •	70 €	150+	1900	100.	SZKI
33.252	17.537	16.116	11.994	5.960	3.159	2.530	2-523	34.141
34.269		16.012	12.088	6.042	3.155	2.517	2.521	35.167
35.622		15.885	12.171	6.151	3.153	2.499	2.519	36.534
36.778		15.794	12.208	6.246	3.153	2.484	2.518	37.701
38.322		15.700	12.217	6.371	3.156	2.465	2.517	39.261
39.629		15.643	12.198	6.477	3.162	2.449	2.516	40.580
41.362		15.592	12.146	6.615	3.174	2.429	2.515	42.331
42.841		15.568	12.087	6.729	3.187	2.413	2.514	43.824
44.824		15.554	12.000	6.874	3.210	2.394	2.512	45.827
46.533		15.552	11.926	6.991	3.234	2.379	2.509	47.552
48.844		15.559	11.833	7.130	3.27.2	2.361	2.505	49.886
50 • 797		15.570	11.767	7.231	3.30.7	2.348	2.500	51.858
53.331		15.588	11.697	7.339	3.357	2.335	2.492	54.417
55.435		15.602	11.649	7.407	3.399	2.326	2.483	56.542
58.164		15.619	11.600	7.470	3.456	2.317	2.473	59.298
61.009		1-5.634	11.561	7.513	3.516	2.317	2.462	62.171
63-372		15.642	11.536	7.534	3.566	2.312	2.452	64.557
66.439		15.649	11.510	7.548	3.629	2.310	2.440	67.654
68.987		15.651	11.492	7.550	3.679	2.311	2.429	70.226
72.294		15.652	11.474	7.546	3.740	2.315	2.417	73.566
75.042		15.651	11.462	7.537	3.788	2.320	2.407	76.342
78-610		15.648	11.449	7.520	3.845	2.329	2.395	79.945
81.576		15.646	11.441	7.502	3.887	2.337	2-386	82.939
85-426		15.644	11.432	7.477	3.936	2.349	2.374	86.828
88.626		15.642	11.425	7.455	3.972	2.359	2-365	90.059
92.782		15.641	11.418	7.426	4.013	2.374	2: 356	94.256
96.236	4	15.641	11.412	7.403	4.041	2.387	2.348	97.743
100.721		15.643	11.406	7.375	4.074	2.403		102.273
104.450		15.644	11.401	7.353	4.096	2.417		106.039
109.293		15.648	11.396	7.328	4.122	2.435		110.929
113.320		15.651	11.392	7.308	4.140	2.449		114.995
118.550		15.655	11.388	7.285	4.160	2.467		120.277
122.899		15.659	11.386	7.267	4.17.4	2.480		124.669
128.549		15.664	11.384	7.245	4.189	2.497		130.374
133.247		15.668	11.384	7.229	4.200	2.510		135.119
139.352		15.672	11.384	7.209	4.211	2.525		141.283
144.428		15.675	11.386	7.193	4.218	2.537		146.409
151.024		15.679	11.389	7.175	4.226	2.550		153.070
156.509		15.681	11.392	7.161	4.230	2.560		158.609
163.637		15.684	11.396	7.144	4.233	2.571		165.807
169.565		15.686	11.401	7.132	4.235	2.579	-	171.793
177-268		15.687	11.407	7.117	4.235	2.589		179.572
183.673		15.688	11.413	7.106	4.234	2.596		186.040
191.996		15.689	11.420	7.094	4.232	2.604		194.445
200.686		15.689	11.427	7.082	4.228	2.611		203.220

MACH NO = 20.00 CONE ANGLE = 8.00 ANGLE OF ATTACK = 5.00 P / P FREE-STREAM AT PLANE ANGLES L/RN 9. 30. 90. 120. 180. S/RN 60. 150. .851 45.909 43.907 38.809 32.664 27.362 23.955 22.800 1.431 1.056 43.539 41.644 36.818 31.025 26.051 22.866 21.792 1.628 1.317 40.303 38.524 34.024 28.703 24.221 21.399 20.454 1.892 1.718 35.803 34.188 30.158 25.497 21.660 19.293 18.507 2.297 29.957 2.789 2.205 31.411 26.326 22.254 19.039 17.144 16.536 2.778 27.600 26.210 22.871 19.293 15.120 16.601 14.673 3.367 24.555 23.218 3.439 20.057 16.801 14.459 13.233 12.878 4.326 22.313 20.967 17.849 4.152 14.762 12.659 11.648 11.381 4.755 13.177 4.929 20.750 19.355 16.198 11.199 10.315 5.539 10.112 5.746 19.725 18.250 14.989 11.966 10.050 9.224 9.039 6.365 17.534 6.590 19.115 14.116 11.645 9.151 8.358 8.181 7.216 7.448 18.828 17.116 13,496 10.342 8.444 7.667 7.499 8.083 18.794 7.884 8.312 16.928 13.066 9.801 7.108 6.942 8.356 9.175 18.955 16.920 12.783 9.382 7.436 6.654 6.483 9.827 10.032 19.262 17.050 10.693 12.612 9.057 7.071 6.285 6.108 10.878 19.678 17.283 12.529 5.802 8.803 6.772 5.981 11.547 11.710 20.182 17.595 12.514 8.605 6.523 5.727 5.549 12.387 12.524 20.766 17.971 12.551 8.451 6.314 5.512 5.335 13.209 18.404 13.319 21.429 12.630 8.332 6.138 5.329 5.153 14.012 14.094 22.165 18.892 12.742 8.241 5.988 5.171 4.996 14.794 14.847 21.763 19.433 12.883 8.172 5.859 5.035 4.860 15.555 15.580 23.808 20.022 13.048 5.748 4.916 4.741 8.121 16.295 16.293 24.681 20.650 13.236 8.086 5.651 4.812 4.637 17.915 16.851 25.387 21.176 13.401 8.067 5.582 4.737 4.563 17.578 17.533 26.263 21.853 13.625 8.053 5.505 4.653 4.480 18.267 18.201 27.117 22.543 13.867 8.050 5.436 4.577 4.406 18.942 18.857 27.933 23.238 14.126 8.055 5.374 4.510 4.340 19.605 19.504 28.696 23.929 14.401 8.067 5.319 4.449 4.280 20.258 29.394 24.606 20.145 14.691 8.087 5.268 4.393 4.227 20.905 20.781 25.262 14.995 30.017 8.112 5.222 4.342 4 - 17-9 21.547 21.417 30.555 25.888 15.312 8.143 5.179 4.295 4.135 22.189 22.054 26.476 4.251 31.002 15.642 8.180 5.139 4.096 22.833 22.696 31.355 27.018 15.984 8.221 5.102 4.210 4 - 060 23.481 16.338 24.137 23.346 31.612 27.505 8.268 5.068 4.172 4.0027 24.007 31.775 27.930 16.704 8.319 5.035 4.135 3.996 24.805 24.683 31.850 28.287 8.376 5.004 4.100 3.967 17.080 25.487 25.377 31.845 28.567 17.467 8.438 4.974 4.066 3.940 26.188 26.094 31.768 28.767 17.862 8.506 4.946 3.915 4.033 26.913 26.839 18.263 31.630 28.883 8.580 4.918 4.001 3.891 27.664 27.607 31.444 28.917 18.664 8.660 4.891 3.970 3.869 28.440 28.872 28.400 31.225 19.059 8.746 4.864 3.939 3.848 29.241 30.988 28.755 29.224 19.443 8.840 4.839 3.909 3.830 30.973 28.575 30.082 30.750 19.810 8.942 4.813 3.879 3.812 30.939 30.981 28.343 4.788 3.796 30-526 20.153 9.054 3.849 31.848 3-781 31.929 3.0 - 330 28.074 20.461 9.177 4.763 3.818 32.804

MACH NO = 20.00 CONE ANGLE = ANGLE OF ATTACK = 8.00 5.00 P / P FREE-STREAM AT PLANE ANGLES L/RN 30. 60. 90. 120. 150. 180. S/RN 20.675 9.286 4.744 3.792 32.725 30.197 27.843 3.770 33.609 33.777 30.064 27.553 20.894 9.435 4.721 3.760 3.758 34.671 34.896 29.969 27.282 21.047 9.601 4.699 3.726 3.746 35.801 36.065 29.911 27.051 21.128 9.783 4.679 3.690 3.736 36.982 37.286 29.883 26.868 21.137 9.982 4.663 3.654 3.728 38.214 38.567 26.734 21.079 29.875 10.198 4.650 3.616 3.719 39.508 20.963 39.919 29.880 26.648 4.642 3.577 3.711 10.432 40.873 10.684 41.356 29.892 26.606 20.802 4.641 3.537 3.703 42.324 42.890 26.599 29.911 20.609 10.952 4.647 3.497 3.695 43.874 20.399 44.540 29.933 26.617 11.231 4.661 3.456 3.686 45.539 46.322 29.958 26.652 20.190 11.512 4.684 3.414 3.674 47.339 48.259 29.984 26.697 19.993 11.784 4.719 3.374 3.660 49.295 12.033 50.372 30.003 26.748 19.819 4.768 3.334 3.643 51.429 52.687 26.805 30.012 19.674 12.246 4.830 3.297 3.623 53.767 55.168 30.011 25.862 19.565 12.408 4.908 3.263 3.599 56.272 4.997 57.748 30.008 26.912 19.490 12.517 3.234 3.570 58.877 60.432 12.579 30.004 26.944 19.436 5.097 3.210 3.540 61.588 63.224 30.005 26.961 19.399 5.208 12.605 3.191 3.509 64.408 66.131 30.009 26.963 19.371 12.605 5.328 3.176 3.480 67.342 3.167 69.156 30.017 26.956 19.350 12.584 5.455 3.449 70.397 72.306 39.026 28.944 19.336 12.543 5.584 3.161 3.418 73.578 75.585 30.037 26.931 19.328 12.486 5.713 3.158 3.388 76.889 78.305 30.047 26.921 19.324 12.430 5.812 3.159 3.365 79.636 26.909 81.831 5.931 30.062 19.321 12.353 3.164 3.336 83.197 85.502 30.076 26.899 19.318 12.274 6.038 3.171 3.309 86.904 89.324 30.090 26.891 19.313 12.199 6.134 3.182 3.283 90.763 93.303 30.102 26.888 19.307 12.131 6: 218 3.196 3.259 94.782 97.447 30.111 26.889 19.300 12.071 6.290 3.214 3.235 98.966 19.292 101.762 30.118 26.894 6.351 3.214 103.324 12.017 3.234 106.255 30.124 26.901 19.284 11.967 6.403 3.257 3.193 107.862 26.910 110.936 30.129 19.277 6.447 11.921 3.282 3.174 112.588 3.157 117.511 115.811 30.132 26.920 19.271 11.878 6.483 3.309 30.134 26.930 120.890 19.266 11.837 6.514 3.337 3.141 122.640 126.181 30.135 26.940 19.263 11.799 6.540 3.366 3.127 127.983 26.949 131.694 30.136 19.261 11.763 6.561 3.395 3.115 133.550 30.136 26.958 137.437 19.262 11.729 6.578 3.424 3.104 139.350 143.422 30.136 26.955 19.265 6.590 3.453 3.095 145.393 11.697 149.657 30.135 26.971 19.270 11.667 6.598 3.480 3.087 151.690 156.154 30.134 26.975 19.277 11.639 6.601 3.507 3.080 158-250 19.287 162 - 923 30.133 26.979 11.613 6.600 3.532 3.076 165.086 169.976 30.131 26.981 19.298 11.588 6.595 3.556 3.072 172.208 177.324 30.129 26.983 19.310 11.565 6.586 3.578 3.070 179.629 184 = 980 30:127 26.983 19.323 11.543 6-575 3.598 3.069 187.360 30.124 26.983 11.522 192-957 19.337 6.563 3.069 195.415 3.616

11.504

6.550

3.632

3.069 203.807

201.267

30.122

26.983

19.350

MACH NO = 25.00CONE ANGLE = 8.00 ANGLE OF ATTACK = 5.00 P / P FREE-STREAM AT PLANE **ANGLES** L/RN 0. 30 . 90. 60. 120. 150. 180. S/RN 71.343 68.223 60.286 50.717 .861 42.467 37-17-4 35.383 1.431 1.115 66.411 63.500 56.107 47.293 39.771 34.974 33.354 1.688 51.591 61.147 58.435 43.525 1.388 36.751 32.502 31.079 1.964 1.805 54.070 51.609 45.491 38.454 32.703 29.17-4 28.007 2-384 2.306 47,308 45.886 39.568 33.435 28.647 25.858. 24.973 2.891 38.467 28.147 3.019 40.563 33.449 24.223 22.101 21.472 3.610 19.343 3.696 36.288 34.230 29.407 24.527 21.093 18.849 4.294 33,189 4.436 34-097 26.302 21.622 18.490 17.038 16.677 5.041 31.059 28.877 23.990 5.224 19.381 16.406 15.103 14.813 5.837 6.212 29.482 27.134 22.020 17.377 14.490 13.271 13.001 6.835 7.055 28.789 26.258 20.874 13.265 16.137 12.086 11.830 7.686 7.906 28.528 25.779 20.059 15.182 12.297 11.130 10.682 8.546 8.758 28.604 25.607 19.497 14.440 11.524 10.353 10.102 9.406 9.603 28.933 25.673 19.129 13.860 10.898 9.721 9.460 10.259 25.983 29.5.70 18.882 13.326 10.293 10.603 9.110 8 - 844 11.269 11.419 30.253 26.381 18.800 12.984 9.882 8.695 8.428 12.093 12.216 31.062 26.878 18.801 12.714 9.538 8.343 8.079 12.898 31.996 12.993 27.464 18.868 12.501 9.247 7-780 8.043 13.683 13.897 33.278 28.282 19.017 12.303 8.954 7...737 7-474 14.595 34.466 7:- 52'0 14.624 29.058 19.188 12.177 8.747 7-257 15.330 15.330 35.739 29.912 19.397 12.079 8.567 7.330 7.067 16.042 37.073 30.835 12.005 16.014 19.639 8.411 7.164 6.901 16.733 31.815 16.678 38.439 19.913 11.951 8.273 7.017 6.755 17.404 33.047 17.451 40.082 20.280 11.908 8.127 6.861 6.601 18.184 34.104 18.078 41.423 20.615 11.889 8.020 6.747 6.488 18.818 42.715 35.174 20.976 18.692 11.881 7.923 6.643 6.386 19.437 36.245 7.835 6.549 19.294 43.934 21.361 11.885 6.295 20.046 7.739 20.006 45.276 37,514 21.852 11.903 6.447 6.197 20.765 20.593 46.275 38.543 22.286 11.926 7.666 6.370 6.123 21.357 21.176 47.150 39.534 22.739 11,958 7.598 6.298 6.057 21.946 47.894 40.475 23.213 7.535 21.758 11.996 6.231 5.996 22.534 22.342 48.498 41.355 23.707 12.042 7.476 5.939 6.168 23.123 42.314 24.325 23.048 49.038 12.104 7.410 6.096 5.877 23.836 23.644 49.334 43.020 24.862 12.163 7.357 6.039 5.828 24.438 7.307 24.250 49.498 43.631 25.418 12.229 5.985 5.782 25.050 25.994 24.870 49.536 44.136 12.300 7.259 5.932 5.738 25.676 25.636 49.430 44.592 26.708 12.394 7.204 5.870 5.687 26.450 26.297 49.227 44.839 27.320 12.480 7.159 5.820 5.647 27.117 26.978 48.938 44.961 27.942 12.574 7.115 5.772 5.609 27.805 27.675 48.585 44.961 28.564 12.674 7.071 5.724 5.573 28.509 28.394 48.190 44.841 29.179 12.781 7.029 5.677 5.539 29.235 29.291 47.697 44.553 29.901 12.923 6.977 5.621 5.500 30.141 47.300 30.071 44.206 30.478 13.055 6.934 5.575 5.470 30.929 30.887 46.939 43.731 31.021 13.199 6.891 5.528 5.442 31.753

13.360

6.847

5.481

5.416

32.618

31.745

46.628

43.303

31.515

### NSHC/HOL/TR 75-45

	MAC	H NO =	25.00	CONE	ANGL	.E =	8.00	A	NGLE	OF	ATTA	ACK =	5.00
			D /	P FR	FF <b>-</b> 91	RFAM	AT	PLA	NE	ANGL	ES		
	L/RN	0.	30.		60•	90		120		150		180.	S/RN
						_		-					
32	2.836	46.331	42-701	32.		13.57		6.79		5.42		5.386	33.720
33	3.803	46.152	42.214	32.		13.78		6.75		5.37		5.364	34.697
34		46.040	41.782	32.		14.01		6.70		5.32		5.345	35.710
		45.983	41-420	32•		14.27		6.66		5.26		5.327	36.755
	-	45.965	41.086	32•		14.61		6.62		5.20		5.308	38.063
		45.979	40-895	32.		1.4.92		6.59		5.14		5.294	39.206
		46.007	40.779	32.		15.27		6.56		5.05		5.280	40.497 41.676
		46.043	40.732		057	15.69		6.54		5.08		5.266 5.252	43.024
		46.085	40.740		724	16.08		6.53		4.88		5.233	44.764
		46.142	40.801		290	16.58		6.53		4.81		5.215	46.332
		46.194	40-879		926 581	17.03		6.56		4.74		5.192	48.027
		46.244	40.971		272	17.48		6.60		4.67		5.165	49.866
		46.283	41.071 41.0200		967	18.38		6.66		4.60		5.127	52.292
		46.302 46.294	41.309		775	18.69		6.74		4.53		5.088	54.521
		46.277	41-407		644	18.9		6 . 85		4.48		5.044	56.879
		46.259	41.479		559	19.09		6.97		4.42		4.994	59.352
	8.798	46.247	41.516		504	19.12		7.11		4.38		4.942	61.958
	4.084	46.246	41.521		462	19.1		7.32		4.31		4.880	65.275
	6.946	46.254	41.502		444	19.10		7.51		4.3		4.826	68.166
	9.924	46.266	41.473		435	19.0		7.72		4.28		4771	71.173
	3.022	46.282	41.442		436	18.9		7.93		4.27	70	4.716	74.301
	6.903	46.307	41.407		444	18.7		8.1	92	4.2	55	4.654	78.221
	0.280	46.333	41.380	29.	452	18.5	84	8 - 41	0 0	4.2	49	4.604	81.631
	3.793	46.358	41.357	29.	457	18.4	29	8.59	94	4.2		4.555	85.178
8	7.446	46.381	41.342	29•	457	18.29		8 • 7		4.2		4.508	88.867
9	1.245	46.399	41.336	29.	452	18.1		8 - 92		4.29		4.463	92.704
	6.007	46.415	41.339		441	18.0		9.0		4.2		4.412	
10	0.150	46.425	41.349		431	17.9		9.21		4.2			101.696
	4.461	46.432	41-363		419	17.8		9.2		4.3			106.050
	8 • 947	46.437	41.379		408	17.8		9.3		4.3			110.580
	4.571	46.441	41-400		395	17.7		9.4		4.3			116 • 259
	9.467	46.442	41.418		.386	17.6		9.5		4.41			121.203
	4.564	46.442	41.435		378	17.5		9.5		4.4			126.350 131.706
	9.868	46.443	41-450		372	17.5		9.5		4.4			137.282
	5.390	46.443	41.464		371	17.4		9.6		4.5			144.274
	2.314	46.443	41.477		374	17.4		-		4.6			150.364
	8.344	46.443	41.485		382	17.4 17.3		9.6		4.6			156.702
	4.621	46.442	41.491 41.495		394 409	17.3		9.6		4.7			163.390
	1.154	46.441 46.438	41-498		430	17.2		9.5		4.7			171.573
	19•3 <i>47</i> 16•48:1	46.436			450	17.2		9.5		4.7			178.777
	3.907	46.433			471	17.2		9.5		4.8			186.276
	13.63.5	46.430	41.499		493	17.1		9.5		4.8			194.080
	1.325	46.425			519	17.1		9.4		4.8			203.866
<b>L</b> U		100762	, = - 7 ) 0					'	-				- '

M/	4CH NO =	30.00	CONE ANG	LE = 8	.00 ANG	LE OF AT	TACK =	5.00
		<u>.</u> .						
			P FREE-S		AT PLANE			0.404
L/RN	0 •	30.	60.	90•	120.	150.	180.	SZRN
861	102.427	97,939	86.528	72.777	60.921	53.326	50.739	1.431
1.115	95.299	91.117	80.497	67 637		50.143		1.687
	87.704	83.807	73.981	62.401				1.963
1.895	75.487	72.023	63.437	53.618		40.803		2.476
2.413	65.965	62.801	55.033	46.490				2.998
3.142	56.634	53.659		39.132				3.735
3.830	50.810	47.868	41.004	34.114				
4.578	46.617	43.613	36.763	30.127		23.714		5.185
5.532	43.308	40.132	33.087	26.534				
6.357	41.644	38.257	30.920	24.307				
7.366	40.632	36.917	29.095	22.310		16.587		
8.212	40.418	36.376	28.053	21.054		15.316		
9.054	40.637	36.234	27.337	20.074				
10.052	41.311	36.456	26.804	19.170		13.289		
10.869	42.121	36.877	26.565	18.589				
11.825	43.335	37.588	26.462	18.048	-			12.503
12.599			26.490	17.697				
13.351	45,935		26.598	17.417		11.092		
14.222	47.830	40.381	26.815	17.154	12.400	10.685	10.316	14.923
14.922	49.571	41.511	27.056	16.985	12.123	10.395	10.025	15.630
15.732	F1.805	43.009	27.410	16.828	11.837	10.093	9.723	16.448
16.384	53.744	44.358	27.755	16.731	11.629	9.874	9.505	17.107
17.016	55.711	45.779	28.142	16.660		9.680		17.745
17.752	58.056	47.555	28.658	16.602	11.250	9.474		
18.349			29.127	16.574				19.091
19.048	62•127		29.736	16.561			8.795	19.798
19.620		. 52•432	30.278	16.566			8.675	20.375
20.183	65.353	53.932	30.851	16.582			8.566	20.944
20.852	66•992	55.679	31.577	16.617		8.790	8.448	21.619
21.406	68.163	57.072	32.214	16.656		8.693	8.358	22.178
22.069	69.318	58.644	33.015	16.715		8.583	8.259	
22.624	70.067	59.854	33.714	16.773		8.497	8-183	
23.183	70.622	60.958	34.441	16.839	10-241	8.414	8.111	23.973
23.863		62.123	35.351			8.319		
24.441	71.182	62.944	36.142	17.010	10.084	8.243	7.964	25.243
25.151	71.130	63.732	37.129	17.119	10.003	8.154	7.889	25.960
25.761	70.912	64.211	37.981	17.218	9.937	8,082	7.828	26.576
26.390	70.550	64.519	38.857	17.326	9.873	8.012	7.770	27-212
27.164	69.969	64.657	39.921	17.466	9.798	7.929	7.704	27.993
27.826	69.396	64.580	40.809	17.592	9.736	7.862	7.651 7.592	28.662
28.648	68.658	64.267	41.866	17.757	9.661 9.598	7.783 7.718	7.545	29•491 30•210
29.359 30.099	67.461	63.836 63.271	42 <i>-7-</i> 2-8 43 <i>-</i> 560	17.908 18.074	9.535	7.653	7.501	30 • 210
31.030	66.844	62.458	43.500 44.497	18.298	9.458	7.574	7.451	31.897
31.849	66.417	61.713	45.202	18.510	9.392	7.507	7.412	32.724
014043	00441	070170	7.7 4 6 9 6	200720	74092		1 4 4 7 6	OFF154

MACH NO = 30.00 CONE ANGLE = 8.00 ANGLE OF ATTACK = 5.00	MACH NO = 30.0	CONE A	NGLE =	8 • 0 0 -	ANGLE OF	ATTACK =	5.00
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		Р/	P FREE-ST	TREAM A	T PLANE	ANGLES		
LZRN	0•	30 •	60 •	90•	120.	150 •	180.	S/RN
•	-							
32.890	66.021	60.802	45.920	18.801	9.311	7.425	7.369	33.775
33.801	65.797	60.089	46.379	19.077	9 • 243	7.354	7.337	34.695
34.925	65.653	59.355	46.730	19.446	9.163	7.269	7.303	35.830
35.893	65.607	58.855	46.848	19.790	9.099	7.195	7.279	36.807
36.896	65.514	58.458	46.813	20.173	9.039	7.118	7.256	37.820
38.154	65.661	58.152	46.582	20.687	8.974	7.022	7.231	39.091
39.258	65.718	58.009	46.252	21.166	8.927	6.939	7.211	40.206
40.662	65.799	57.962	45.724	21.804	8.880	6.835	7.137	41.623
41.908	65.873	58.005	45.209	22.386	8.851	6.746	7.166	42.882
43.236	65.953	58.103	44.657	23.008	8.832	<b>6.65</b> 3	7.144	44.222
44.954	66.055	58.264	43.993	23.793	8 • 827	6.537	7.112	45.958
46.507	66.134	58.418	43.470	24•457	8.840	6.438	7.079	47.526
48.541	66.202	58.616	42.914	25.227	8.878	6.318	7.032	49.580
50.398	66.222	58.788	42.533	25.811	8.932	6.220	6.984	51.455
52.414	66.209	58.960	42.240	26.309	9.013	6.124	6.930	53.491
54.955	66.172	59•147	42.012	26.749	9.143	6.019	6 • 853	56.057
57.167	66.137	59.258	41.897	26.983	9.279	5.940	6.782	58.291
59.958	65.108	59.328	41.817	27.134	9.481	5.858	6 • 695	61.109
62.419	66.099	59.334	41.779	27.170	9.688	5.799	6.621	63.594
65.029	66.100	59.302	41.759	27.136	9.928	5.748	6.545	66.230
68.402	66.111	59.239	41.755	27.004	10.259	5.695	6.449	69.636
71.392	66.129	59.182	41.768	26.819	10.566	5.658	6.367	72.655
75.136	66.168	59.119	41.800	26.530	10.949	5.624	6.270	76.436
78.392	66.207	59.070	41.826	26.260	11.265	5.603	6.192	79.724
81.776	66.247	59.030	41.844	26.000	11.569	5.587	6.116	83.141
86.013	66.289	58.998	41.853	25.729	11.908	5.575	6.030	87.420
89.698	66.316	58.986	41.849	25.541	12.162	5.571	5.960	91.141
94.312	66.339	58.992	41.837	25.351	12.427	5.575	5.880	95.801
98.325	66.352	59.008	41.823	25.214	12.617	5.584	5.817	99.853
102.497	66.361	59.031	41.808	25.090	12.778	5.601	5.758	104.066
107.724	66.368	59.062	41.788	24.955	12.935	5.629	5.691	109.345
112.272	66.371	59.089	41.771	24.854	13.040	5.659	5.639	113.937
117.971	66.371	59.122	41.750	24.744	13.140	5.704	5.580	119.692
122.930	66.371	59.148	41.734	24.663	13.205	5.746	5.535	
128.089	66.371	59.171	41.722	24.590	1.3 • 255	5.793		129.910
134.555	66.372	59.194	41.716	24.512	13.299	5.855		136.439
140.182	66.373	59.209		24.453	13.320	5.909		142.122
147.235	66.374	59.221		24.385	13.326	5.978	5.371	
153.373	66.373	59.229	41.748	24.331	13.313	6.836		155.442
159.758	66.372	59.234		24.278	13.286	6.094		161.890
167.760	66.370	55.238		24.216	13.237	6.163		169.971
174.724	66.367	53.239		24.167	13.190	6 • 21 8		177.003
183:451	66:362	59,239		24-111	13.133	6.282		185.816
191.045	66.358	59.238		24.067	13.090	6.332		193.484
200.560	66.352	59.236	41.936	24:-018	13.044	6.390	5.202	203.093

MAC	H NO =	3.50	CONE	ANGL	E = 9	.00	ANGLE	OF	ATTACK	=	5.00
		n /	ם גם	CE_9T1	REAM	AT P	LANE	ANGL	ES		
1. 4DM	0.	30.		60.	90		20.	150		.80.	S/RN
L/RN	U •	., 0 4		<b>030</b>							
.841	2.183	2.104	1.	900	1.648			1.27		224	
•931	2.162	2.082		875	1.621		397	1.25		200	1.502 1.604
1.032	2.189	2: 109		901	1.64			1.27		222	1.718
1.144	2.187	2.107		900	1.64		425	1.27		230	1.912
1.336	2-171	2.090		884	1.63		41.8	1.27		227	2.059
1.481	2.153	2.073		868	1.62		•409 •392	1.26	-	220	2.307
	2:•118	2.038		837	1.59		• 371	1.25		210	2.591
2.006	2.078	1.999		800	1.56		•354	1.23		.200	2.800
2.213	2.041	1.964		768	1.50		•331	1.22		.188	_
2.554	2.001	1.922		726 704	1.48		.315	1.21		.181	3.397
2.802	1.980	1-901 1-874		677	1.45		.291	1.19	8 1	.170	3.807
3.207	1-952	1.854		654	1.43	_	.270	1.18		.156	4.256
3.650	1-934 1-926	1.054		643	1.42		.259	1.17	71 1	-147	
3.968	1.920	1-837		631	1.41		-247	1.18		.138	
4.476 4.836	1.920	1.836		626	1.40		.242	1.1		.136	
5.409	1.925	1.838		623	1.39	7 1	· 23.6	1.1		.136	
6.020	1.933	1.843	-	62.3	1.39		•232	1.1		.138	
6.449	1.940	1-849		625	1.39		•231	1.1	-	•139	
7.125	1.952	1-859	- 1	.630	1.39	-	.231		-	•142	
7.596	1.961	1.867		634	1.39		. 233	1.01	•	•144 •148	
8.335	1.976	1.879	-	• 642	1.40		. 236			•154	
9.112	1.990	1.891		• 650	1.40	-	.239			.158	
9.652	1 • 999	1.899	_	655	1-40		. • 242 . • 247			.165	
10.492	2.013	1.911	-	. 664	1.41		25.0			•16ª	
11-074	2-021	1.919		• 669	1.42		254	1.1		.176	
11-979	2-033	1.930	-	•677 •685			259	1.1		.182	13.644
12.923	2.044	1.940 1.947		•690			1.261	1.1		1.186	14.303
13.574	2.051 2.061	1.955		.697			1.266	1.2		1.192	15.326
14.584	2.066			.701			1.268	1.2	06 1	1.19	16.030
15-280 16-358	2.074			.707			1.27.2	1.2		1.20	
17.478	2.081	1.975	-	.713	1.4		1.275	1.2		1.20	
18.249	2.085	1.979	-	.717	1.4	50	1.27-7			1.20	7 19.036
19.442	2.091	1.98	-	.722	1.4		1.281	1.2		1.21	
20.262	2.094			.725	1.4		1.282	1.2		1.21	
21.531	2.099			<b>-</b> 729	1.4		1.285	1.2		1.21	
22.849	2.102			.733	1.4		1.288	1.6		1.21	
23.755	2.105	1.99	-	L. 735	1.4		1.289	1.3		1.22 1.22	
25.158	2.108			L. 739	1.4		1.291			1,22	
26.123			•	L.741	1.4		1.293			1.22	
27-616	2.112			1.744	1.4		1.295 1.296			1.22	
29.169				1.746	1.4		1.297			1.22	*
30.238				1.748	1.4 1.4		1.299			1.22	
31.895	2.117	2.01	<b>ა</b>	1.750	Ť • 4	1-0	T-011				

MAC	H NO =	3.50	CONE AND	GLE = 9	.00- ANG	LE OF AT	TACK =	5.00
		p /	P FREE-	STREAM A	AT PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150.	180 -	S/RN
			000					
33.036	2.118	2.014	1.752	1.477	1.300	1.237	1.229	34.007
34.806	2.119	2.016	1.754	1.479	1.301	1.238	1.230	35.800
36.027	2.120	2.017	1.755	1.480	1.302	1.239	1.230	37.036
37.921	2.121	2.018	1.757	1.482	1.303	1.240	1.231	38.954
39.895	2.121	2.019	1.759	1.483	1.305	1.241	1.232	40.952
41.257	2.122	2.019	1.760	1.484	1.305	1.241	1.232	42.331
43.372	2.122	2.020	1.761	1.485		1.242	1.233	44.472
44.832	2.122	2.021	1.762		1.307	1.242	1.233	45.951
47.101	2.123	2.021	1.764			1.243	1.233	48.247
49.467	2.123	2.022	1.765		1.4309	1.243	1.234	50.643
51.101	2.123	2.022	1.766		1.309	1.244	1.234	52.297
53.640	2.124	5.053	1.767			1.244	1.234	54.868
55.394	2.124	2.023	1.768		1.310	1.244	1.235	56.644
58.120	2.124	2.023	1.769		1.311	1.245	1.235	59.404
60.964	2.124	2.024	1.770			1.245	1.235	62.284
62.929	2.124	2.024	1.770			1.245	1.235	64.273
65.984	2.124	2.024	1.771			1.246	1.235	67.366
68.094	2.124	2.024	1.771			1.246	1.236	69.503
71.375	2.124	2.024	1.772			1.246	1.236	72 • 825 76 • 292
74.800	2.125	2.024	1.772			1.247	1.236	78.688
77 • 166	2.125	2.024	1.77-2			1,247 1,247	1.236 1.236	82.412
80.845	2.125	2.024	1.773			1.247	1.236	
83.38.7	2.125	2.024	1.773			1.247	1.236	88.988
87.33.9	2.125	2.024	1.773 1.773			1.248	1.236	93.165
91.465	2.126	2.024	1.773			1.248	1.236	96.051
94.316	2.126	2.024 2.024	1.773			1.248		100.540
98.749 101.812	2.126 2.126	2.024	1.773			1.248		103.641
106.575	2.126	2.024	1.773			1.248		108.463
111.548	2.126	2.024	1.773			1.248		113.498
114.984	2.127	2.024	1.773			1.248		116.977
120.328	2.127	2.024	1.77.3			1.248		122.387
124.020	2.127	2.024	1.773			1.249		126.126
129.762	2.127	2.024	1.772			1.249		131.939
135.75.6	2.127	2.024	1.772			1.249		138.008
139.899	2.127	2.024	1.772			1.249	1.237	142.203
146.341	2.127	2.024	1.772			1.249		148.725
150.793	2.127	2.024	1.772			1.249	1.237	153.232
157.716	2.127	2.024	1.772			1.249		160.241
164.944	2.128	2.024	1.772			1.249		167.560
169.940	2.128	2.024	1.77-2			1.249		172.618
177.708	2.128	2.024	1.771			1.249		180.483
183.077	2.128	2.024	1.771			1.249		185.919
191.426	2.128	2.024	1.771		1.318	1.249		194.372
200.144	2.128	2.024	1.771	1.504	1.318	1.249	1.237	203.199

L/RN 0. 30. 60. 90. 120. 150. 180. S/RN  .844 3.725 3.578 3.202 2.741 2.337 2.074 1.984 1.414  .936 3.671 3.524 3.144 2.683 2.281 2.021 1.932 1.507  1.045 3.655 3.510 3.139 2.686 2.292 2.035 1.948 1.617  1.237 3.558 3.415 3.051 2.614 2.239 1.998 1.916 2.816  1.468 3.433 3.294 2.941 2.521 2.164 1.938 1.862 2.046  1.468 3.433 3.294 2.941 2.521 2.164 1.938 1.862 2.046  1.734 3.293 3.158 2.816 2.416 2.081 1.872 1.802 2.315  2.032 3.154 3.021 2.690 2.306 1.993 1.820 1.733 2.617  2.336 3.012 2.883 2.559 2.194 1.905 1.733 1.678 2.993  2.730 2.901 2.770 2.448 2.093 1.820 1.665 1.616 3.324  3.131 2.810 2.678 2.357 2.008 1.742 1.596 1.553  3.151 2.810 2.678 2.357 2.008 1.742 1.596 1.553  3.555 2.741 2.607 2.281 1.934 1.675 1.534 1.493 4.169  4.032 2.694 2.556 2.222 1.872 1.617 1.492 1.493  4.692 2.666 2.523 2.179 1.824 1.559 1.439 1.402 5.145  4.877 2.656 2.509 2.158 1.798 1.559 1.439 1.402 5.145  5.424 2.653 2.500 2.136 1.767 1.558 1.381 1.334 6.051  5.424 2.653 2.500 2.136 1.767 1.508 1.381 1.334 6.051  5.498 2.662 2.592 2.125 1.745 1.481 1.354 1.322  6.599 2.680 2.513 2.121 1.730 1.447 1.316 1.322 6.551  7.881 2.736 2.556 2.134 1.717 1.431 1.307 1.275 6.558  8.560 2.771 2.584 2.147 1.717 1.431 1.307 1.275 6.538  8.560 2.771 2.584 2.147 1.717 1.431 1.301 1.268 9.227  9.267 2.883 2.614 2.163 1.720 1.447 1.316 1.266 7.877  7.881 2.736 2.584 2.147 1.717 1.431 1.301 1.268 9.227  9.267 2.883 2.644 2.163 1.720 1.447 1.316 1.266 7.877  9.267 2.883 2.679 2.202 1.773 1.442 1.299 1.262 11.456  10.760 2.884 2.679 2.202 1.773 1.445 1.304 1.275 1.4554  14.737 3.038 2.899 2.774 2.266 1.767 1.445 1.304 1.275 1.4554  14.737 3.038 2.899 2.793 2.280 1.770 1.447 1.316 1.271 1.4554  14.737 3.038 2.899 2.793 2.280 1.770 1.447 1.330 1.262 11.456  18.744 3.127 2.998 2.374 1.885 1.462 1.331 1.301 1.272 13.955  3.146 3.180 2.984 2.390 1.885 1.479 1.351 1.371 1.375 1.355 2.984  18.754 3.993 3.999 2.404 1.845 1.479 1.357 1.351 2.352 2.984  18.770 3.108 2.889 2.358 1.815 1.462 1.331 1.301 1.272 1.355 2.984  18.794 3.993 3.195 2.983 2.499 1.870 1.	MAC	H NO =	5.00	CONE	ANGLE	=	9.00	ANGLE	OF	ATTACE	< =	5.00
L/RN 0. 30. 60. 90. 120. 150. 180. S/RN  .844 3.725 3.578 3.202 2.741 2.337 2.074 1.984 1.414 .936 3.671 3.524 3.144 2.683 2.281 2.021 1.932 1.507 1.045 3.655 3.510 3.139 2.686 2.292 2.035 1.948 1.617 1.237 3.558 3.415 3.051 2.614 2.239 1.998 1.916 1.612 1.237 3.558 3.415 3.051 2.614 2.239 1.998 1.916 1.612 1.468 3.433 3.294 2.941 2.521 2.164 1.938 1.862 2.046 1.734 3.293 3.158 2.816 2.416 2.081 1.672 1.802 2.315 2.032 3.154 3.021 2.690 2.306 1.993 1.802 1.738 2.617 2.334 3.012 2.883 2.559 2.194 1.905 1.733 1.678 2.953 2.730 2.901 2.770 2.448 2.093 1.820 1.665 1.616 3.334 3.151 2.810 2.678 2.357 2.008 1.742 1.596 1.553 3.152 2.741 2.607 2.281 1.934 1.675 1.534 1.493 4.169 4.032 2.694 2.556 2.222 1.872 1.617 1.482 1.443 4.6641 4.529 2.666 2.523 2.179 1.824 1.569 1.439 1.402 5.145 4.529 2.666 2.523 2.179 1.824 1.569 1.439 1.402 5.145 5.4942 2.653 2.500 2.136 1.767 1.508 1.331 1.301 7.2656 5.998 2.660 2.513 2.121 1.730 1.462 1.333 1.301 7.275 5.4942 2.653 2.500 2.136 1.767 1.508 1.331 1.301 6.051 7.227 2.705 2.532 2.125 1.745 1.481 1.354 1.322 6.632 6.599 2.680 2.513 2.121 1.730 1.462 1.333 1.301 7.275 8.560 2.771 2.584 2.147 1.717 1.437 1.307 1.275 8.538 1.560 2.771 2.584 2.147 1.717 1.437 1.307 1.268 9.227 8.560 2.771 2.2584 2.147 1.717 1.437 1.301 1.268 9.227 8.560 2.771 2.2584 2.147 1.717 1.437 1.301 1.268 9.227 1.560 2.771 2.266 2.182 1.726 1.426 1.294 1.261 1.456 10.762 2.883 2.679 2.202 1.733 1.427 1.293 1.262 11.456 10.762 2.883 2.679 2.202 1.733 1.491 1.300 1.268 9.227 13.822 3.009 2.793 2.280 1.770 1.440 1.304 1.275 1.4554 14.737 3.038 2.820 2.794 2.284 1.795 1.485 1.301 1.272 13.957 13.822 3.009 2.793 2.280 1.770 1.440 1.304 1.275 13.495 13.822 3.009 2.793 2.280 1.770 1.440 1.304 1.275 13.495 13.822 3.009 2.793 2.280 1.770 1.440 1.304 1.275 13.495 13.822 3.009 2.793 2.280 1.770 1.440 1.304 1.275 13.495 13.823 3.009 2.793 2.280 1.770 1.440 1.304 1.275 13.495 13.832 3.009 2.793 2.280 1.770 1.440 1.304 1.275 13.495 13.832 3.009 2.793 2.280 1.770 1.440 1.304 1.275 13.495 13.832 3.009 2.793 2.404 1.885 1.490			0. /	n :0:	CCCTD	FAM	ΔT	PI ANE	ANGL	.ES		
.844 3.725 3.578 3.202 2.741 2.337 2.074 1.984 1.414 .936 3.671 3.524 3.144 2.683 2.281 2.021 1.932 1.507 1.045 3.655 3.510 3.139 2.686 2.292 2.035 1.986 1.617 1.237 3.558 3.415 3.051 2.614 2.3239 1.998 1.916 1.612 1.237 3.558 3.415 3.051 2.614 2.329 1.998 1.802 2.315 1.734 3.293 3.158 2.816 2.416 2.081 1.872 1.802 2.315 1.733 3.293 3.158 2.816 2.416 2.081 1.872 1.802 2.315 1.733 3.293 3.158 2.816 2.416 2.081 1.872 1.802 2.315 1.734 3.021 2.883 2.559 2.194 1.905 1.733 1.678 2.963 2.364 3.012 2.883 2.559 2.194 1.905 1.733 1.678 2.963 2.730 2.901 2.770 2.448 2.093 1.820 1.655 1.616 3.324 4.032 2.901 2.678 2.357 2.008 1.742 1.596 1.553 3.730 3.151 2.807 2.281 1.934 1.675 1.534 1.493 4.691 4.032 2.694 2.556 2.222 1.872 1.617 1.882 1.443 4.641 4.529 2.666 2.523 2.179 1.824 1.569 1.439 1.402 5.445 4.877 2.656 2.509 2.158 1.778 1.542 1.414 1.379 5.498 4.877 2.656 2.500 2.136 1.767 1.508 1.381 1.349 6.051 5.998 2.660 2.502 2.125 1.745 1.481 1.354 1.322 6.632 6.599 2.680 2.513 2.121 1.730 1.462 1.333 1.301 7.241 9.267 2.808 2.513 2.121 1.730 1.462 1.333 1.301 7.241 9.267 2.808 2.514 2.163 1.720 1.427 1.293 1.268 9.227 9.267 2.808 2.514 2.163 1.720 1.427 1.293 1.268 9.227 9.267 2.808 2.614 2.163 1.720 1.427 1.293 1.266 11.268 0.771 2.584 2.147 1.717 1.437 1.300 1.268 9.227 9.267 2.808 2.614 2.163 1.720 1.427 1.293 1.262 11.456 11.754 2.992 2.712 2.223 1.742 1.440 1.304 1.275 1.456 11.754 2.992 2.774 2.266 1.763 1.436 1.301 1.272 13.957 11.554 2.992 2.774 2.266 1.763 1.446 1.331 1.272 13.957 11.554 2.992 2.774 2.266 1.763 1.446 1.331 1.272 13.957 11.554 2.992 2.793 2.280 1.770 1.447 1.331 1.271 1.456 12.377 2.955 2.744 2.266 1.763 1.436 1.301 1.272 13.957 13.832 3.009 2.793 2.280 1.770 1.449 1.330 1.262 11.456 13.833 3.194 2.998 2.774 2.286 1.781 1.499 1.351 1.301 1.272 13.957 13.832 3.009 2.793 2.280 1.770 1.449 1.337 1.314 20.618 18.744 3.127 2.998 2.774 2.286 1.781 1.855 1.474 1.337 1.314 20.618 24.338 3.148 2.994 2.489 1.885 1.490 1.356 1.334 2.701 25.559 3.195 2.995 2.446 1.889 1.551 1.371 1.355 2.866 28.973 3.207 3.	4.401	ο.									180 .	SZRN
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1.734   3.293   3.158   2.816   2.415   2.001   1.672   1.738   2.017     2.364   3.012   2.883   2.559   2.194   1.905   1.733   1.678   2.953     2.730   2.901   2.770   2.448   2.093   1.8020   1.665   1.616   3.324     3.151   2.810   2.678   2.357   2.008   1.742   1.596   1.553   3.730     3.155   2.741   2.607   2.281   1.934   1.675   1.534   1.493   4.169     4.032   2.6694   2.556   2.222   1.872   1.617   1.482   1.443   4.641     4.529   2.666   2.523   2.179   1.824   1.559   1.439   1.402   5.145     4.877   2.656   2.520   2.135   1.745   1.550   1.381   1.339   6.051     5.998   2.662   2.550   2.125   1.745   1.481   1.379   5.498     6.6599   2.680   2.551   2.125   1.745   1.481   1.374   6.652     7.227   2.705   2.532   2.125   1.771   1.437   1.318   1.286   7.877     7.881   2.736   2.556   2.134   1.717   1.437   1.310   1.268   9.227     9.267   2.886   2.664   2.147   1.717   1.437   1.300   1.268   9.227     9.267   2.883   2.679   2.202   1.733   1.427   1.295   1.262   11.456     10.762   2.883   2.679   2.202   1.733   1.427   1.295   1.264   12.258     12.377   2.955   2.744   2.245   1.756   1.436   1.301   1.275   1.456     13.322   2.988   2.774   2.266   1.763   1.445   1.301   1.275   1.456     13.322   2.988   2.774   2.266   1.763   1.445   1.301   1.275   1.456     13.322   3.009   2.793   2.280   1.770   1.445   1.304   1.227   1.225     13.532   3.087   2.868   2.340   1.885   1.456   1.334   1.287   1.456     14.737   3.038   2.829   2.301   1.781   1.445   1.336   1.275   1.455     14.737   3.038   2.829   2.301   1.781   1.445   1.336   1.227   1.226   1.256     13.743   3.163   2.995   2.446   1.889   1.450   1.356   1.330   1.268   1.301     13.743   3.180   2.996   2.445   1.865   1.456   1.334   1.320   1.320   1.320   1.320     23.169   3.180   2.996   2.448   1.885   1.504   1.335   1.336   1.336   1.366   3.5670     24.348   3.188   2.974   2.439   1.885   1.5504   1.355   1.332   21.723   20.686   3.201   2.995   2.446   1.889   1.550   1.355   1.338   1.356		3.433										
2.032 3.154 3.012 2.883 2.559 2.194 1.905 1.733 1.678 2.953 2.730 2.901 2.770 2.448 2.093 1.820 1.665 1.616 3.324 3.131 2.810 2.678 2.357 2.008 1.742 1.596 1.655 3.730 3.730 3.155 2.741 2.607 2.281 1.934 1.675 1.553 3.730 4.169 4.032 2.694 2.556 2.222 1.872 1.617 1.482 1.443 4.661 4.872 2.656 2.509 2.158 1.798 1.552 1.414 1.379 5.498 4.877 2.656 2.500 2.136 1.767 1.508 1.381 1.379 5.498 2.692 2.550 2.125 1.745 1.481 1.359 1.402 5.145 4.599 2.680 2.551 2.125 1.745 1.481 1.354 1.322 6.632 6.599 2.680 2.513 2.121 1.730 1.462 1.333 1.301 7.241 7.227 2.705 2.532 2.125 1.721 1.447 1.318 1.286 7.877 7.881 2.776 2.556 2.134 1.717 1.431 1.300 1.268 9.227 9.267 2.808 2.614 2.163 1.720 1.427 1.293 1.262 10.685 10.762 2.883 2.679 2.202 1.733 1.427 1.293 1.262 10.685 10.762 2.883 2.679 2.202 1.733 1.427 1.293 1.262 10.685 10.762 2.883 2.679 2.202 1.733 1.427 1.293 1.262 10.685 11.554 2.920 2.712 2.223 1.742 1.449 1.301 1.275 1.268 13.091 1.323 2.988 2.774 2.266 1.763 1.446 1.301 1.275 1.268 13.091 1.354 2.998 2.774 2.266 1.763 1.436 1.301 1.275 1.268 13.091 1.362 3.009 2.793 2.280 1.770 1.440 1.304 1.275 1.268 13.091 1.275 1.569 3.064 2.845 2.321 1.793 1.445 1.314 1.287 1.281 1.5480 1.275 1.4554 1.309 1.281 15.480 1.770 1.440 1.304 1.275 1.268 13.091 1.275 1.368 2.398 2.774 2.266 1.763 1.436 1.301 1.272 13.957 1.368 2.898 2.774 2.266 1.763 1.436 1.301 1.272 13.957 1.268 13.091 1.275 1.275 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285 1.285		3.293								-		
2.364 3.012 2.883 2.999 2.194 1.620 1.665 1.616 3.3724 2.730 2.901 2.770 2.448 2.093 1.620 1.665 1.616 3.730 3.730 3.131 2.810 2.678 2.357 2.008 1.742 1.596 1.553 3.730 3.131 2.810 2.6678 2.357 2.008 1.742 1.596 1.553 3.730 3.131 2.810 2.6678 2.357 2.008 1.742 1.596 1.593 4.169 4.602 2.606 2.523 2.179 1.824 1.569 1.439 1.402 5.145 4.529 2.666 2.523 2.179 1.824 1.569 1.439 1.402 5.145 4.529 2.666 2.523 2.179 1.824 1.569 1.439 1.402 5.145 4.529 2.666 2.520 2.158 1.798 1.508 1.381 1.349 6.051 5.998 2.662 2.502 2.125 1.745 1.481 1.354 1.322 6.652 6.599 2.660 2.5513 2.121 1.730 1.461 1.354 1.322 6.652 6.599 2.660 2.5513 2.121 1.730 1.447 1.318 1.286 7.877 7.227 2.705 2.5552 2.125 1.721 1.447 1.318 1.286 7.877 7.881 2.736 2.556 2.134 1.717 1.437 1.300 1.268 9.227 7.881 2.736 2.556 2.134 1.717 1.437 1.300 1.268 9.227 1.262 1.665 1.204 9.942 1.202 2.802 2.802 2.802 2.802 2.712 2.202 1.733 1.427 1.293 1.262 10.685 10.762 2.883 2.6646 2.182 1.726 1.426 1.294 1.262 10.685 10.762 2.883 2.679 2.202 1.733 1.427 1.293 1.262 10.685 12.377 2.955 2.744 2.225 1.752 1.432 1.297 1.268 13.091 1.275 13.232 2.988 2.774 2.2265 1.752 1.449 1.295 1.264 12.258 13.031 1.277 1.449 1.300 1.272 13.957 13.232 2.988 2.774 2.2265 1.763 1.449 1.301 1.272 13.957 13.232 2.988 2.774 2.2265 1.763 1.440 1.304 1.275 14.554 13.770 1.449 1.304 1.272 13.957 13.822 2.988 2.774 2.2265 1.763 1.440 1.304 1.275 14.554 13.770 1.449 1.304 1.272 13.957 13.232 2.988 2.774 2.2265 1.763 1.445 1.309 1.226 11.456 13.031 1.272 13.957 13.232 2.988 2.774 2.2265 1.763 1.449 1.309 1.226 11.456 1.294 17.449 1.300 1.272 13.957 13.22 2.939 2.280 1.770 1.449 1.304 1.275 14.554 12.258 13.091 3.134 1.287 1.6454 1.309 1.287 1.287 1.288 1.287 1.289 1.288 1.287 1.289 1.288 1.289 1.2889 2.358 1.815 1.479 1.332 1.320 1.297 1.286 1.301 18.482 1.370 1.287 1.288 1.301 18.482 1.301 1.287 1.352 2.868 1.301 1.894 1.356 1.336 1.301 18.482 1.309 1.286 1.336 1.301 18.482 1.309 1.368 3.180 2.994 2.449 1.885 1.495 1.356 1.336 2.24.616 1.301 1.343 2.24.618 1.301 1.355 1.336 2.24.618 1.301 1.355	2.032											
2.730	2.364											
3.131												
3.565       2.741       2.8017       2.222       1.872       1.617       1.482       1.402       5.145         4.529       2.666       2.523       2.179       1.824       1.569       1.439       1.402       5.145         4.877       2.666       2.509       2.158       1.767       1.508       1.381       1.379       5.498         5.424       2.653       2.500       2.136       1.767       1.508       1.381       1.329       6.632         6.599       2.660       2.513       2.121       1.730       1.462       1.333       1.301       7.241         7.227       2.705       2.532       2.125       1.721       1.447       1.318       1.286       7.877         7.881       2.736       2.556       2.134       1.717       1.437       1.307       1.275       8.538         8.560       2.771       2.584       2.147       1.717       1.431       1.300       1.264       9.942         9.267       2.808       2.614       2.163       1.720       1.427       1.296       1.264       9.942         10.702       2.846       2.666       2.182       1.722       1.427       1.296												
4.529												
4.877		2.694										
5.424       2.6563       2.500       2.136       1.767       1.508       1.381       1.349       6.051         5.998       2.662       2.502       2.125       1.745       1.481       1.354       1.322       6.632         6.599       2.680       2.513       2.121       1.770       1.462       1.333       1.301       7.241         7.227       2.705       2.532       2.125       1.771       1.437       1.307       1.275       8.537         7.881       2.776       2.556       2.134       1.717       1.437       1.307       1.268       9.227         9.267       2.808       2.614       2.163       1.720       1.427       1.296       1.264       9.942         10.762       2.846       2.646       2.182       1.7720       1.427       1.293       1.262       11.456         10.762       2.883       2.679       2.202       1.733       1.427       1.293       1.262       11.456         11.554       2.920       2.712       2.223       1.742       1.429       1.291       1.268       13.991         13.8232       2.985       2.744       2.265       1.763       1.436       1.301 </td <td></td> <td>.379</td> <td></td>											.379	
5.998         2.662         2.502         2.125         1.745         1.481         1.354         1.322         6.632           6.599         2.680         2.513         2.121         1.730         1.462         1.333         1.301         7.241           7.227         2.705         2.556         2.134         1.717         1.447         1.318         1.266         7.877           7.881         2.736         2.556         2.134         1.717         1.437         1.300         1.268         9.227           9.267         2.808         2.614         2.163         1.720         1.427         1.296         1.264         9.942           10.702         2.848         2.614         2.163         1.720         1.427         1.299         1.262         10.685           10.762         2.883         2.679         2.202         1.733         1.427         1.293         1.262         11.456           11.554         2.9920         2.712         2.223         1.742         1.429         1.295         1.264         12.258           12.377         2.955         2.744         2.245         1.752         1.432         1.297         1.268         13.091											.349	
6.599       2.680       2.513       2.121       1.730       1.462       1.333       1.301       7.241         7.227       2.705       2.532       2.125       1.721       1.447       1.318       1.286       7.877         7.881       2.736       2.556       2.134       1.717       1.437       1.307       1.268       9.227         8.560       2.771       2.584       2.147       1.717       1.427       1.296       1.264       9.942         10.000       2.846       2.646       2.182       1.726       1.426       1.294       1.262       10.685         10.762       2.883       2.679       2.202       1.7733       1.427       1.293       1.262       11.456         10.762       2.883       2.679       2.202       1.7733       1.427       1.295       1.264       12.258         11.554       2.9920       2.712       2.223       1.742       1.429       1.295       1.264       12.258         12.377       2.995       2.744       2.245       1.770       1.440       1.301       1.275       14.554         13.822       3.009       2.793       2.280       1.770       1.4450       1.									1.3		-	
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10.000       2.846       2.646       2.182       1.726       1.426       1.294       1.262       11.456         10.762       2.883       2.679       2.202       1.733       1.427       1.293       1.262       11.456         11.554       2.920       2.712       2.223       1.742       1.429       1.295       1.264       12.258         12.377       2.955       2.744       2.245       1.752       1.432       1.297       1.268       13.091         13.232       2.988       2.774       2.266       1.763       1.436       1.301       1.272       13.957         13.822       3.009       2.793       2.280       1.770       1.440       1.304       1.275       14.554         14.737       3.038       2.820       2.301       1.781       1.445       1.309       1.281       15.480         15.690       3.064       2.845       2.321       1.773       1.451       1.314       1.287       16.445         17.701       3.108       2.889       2.358       1.815       1.462       1.320       1.294       17.449         18.744       3.127       2.908       2.374       1.825       1.468 <t< td=""><td></td><td></td><td></td><td>. 2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>				. 2								
10.762       2.883       2.679       2.202       1.733       1.427       1.295       1.264       12.258         11.554       2.992       2.712       2.223       1.742       1.429       1.295       1.264       12.258         12.377       2.955       2.744       2.245       1.752       1.432       1.297       1.268       13.091         13.232       2.988       2.774       2.266       1.763       1.436       1.301       1.272       13.957         13.822       3.009       2.793       2.280       1.770       1.440       1.304       1.275       14.554         14.737       3.038       2.820       2.301       1.781       1.445       1.309       1.281       15.480         15.690       3.064       2.845       2.321       1.793       1.451       1.314       1.287       16.445         16.682       3.087       2.868       2.340       1.805       1.452       1.320       1.294       17.449         17.701       3.108       2.889       2.374       1.825       1.462       1.331       1.307       19.538         18.744       3.143       2.924       2.390       1.825       1.468 <t< td=""><td></td><td></td><td></td><td></td><td>.182</td><td></td><td></td><td></td><td></td><td> •</td><td></td><td></td></t<>					.182					•		
11.554       2.920       2.712       2.223       1.742       1.429       1.297       1.268       13.091         12.377       2.955       2.744       2.245       1.752       1.432       1.297       1.268       13.091         13.232       2.988       2.774       2.266       1.763       1.436       1.301       1.275       14.554         13.822       3.009       2.793       2.280       1.770       1.440       1.304       1.275       14.554         14.737       3.038       2.820       2.301       1.781       1.445       1.309       1.281       15.480         15.690       3.064       2.845       2.321       1.793       1.451       1.314       1.287       16.445         16.682       3.087       2.889       2.358       1.815       1.462       1.326       1.301       18.482         17.701       3.108       2.889       2.374       1.825       1.468       1.331       1.307       19.538         18.744       3.143       2.924       2.390       1.835       1.474       1.337       1.314       20.618         20.903       3.657       2.939       2.404       1.845       1.479 <t< td=""><td></td><td></td><td></td><td></td><td>202</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>					202							
12.377       2.955       2.744       2.245       1.752       1.432       1.272       13.957         13.232       2.988       2.774       2.266       1.763       1.436       1.301       1.272       13.957         13.822       3.009       2.793       2.280       1.770       1.440       1.304       1.287       14.554         14.737       3.038       2.820       2.301       1.781       1.445       1.309       1.281       15.480         15.690       3.064       2.845       2.321       1.793       1.451       1.314       1.287       16.445         16.682       3.087       2.868       2.340       1.804       1.457       1.320       1.294       17.449         16.682       3.087       2.889       2.358       1.815       1.462       1.326       1.301       18.482         17.701       3.108       2.889       2.374       1.825       1.468       1.331       1.307       19.538         18.744       3.137       2.992       2.390       1.835       1.474       1.337       1.314       20.618         19.811       3.143       2.992       2.404       1.845       1.479       1.342 <t< td=""><td>_</td><td></td><td>2.712</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	_		2.712									
13.232       2.988       2.774       2.266       1.763       1.436       1.304       1.275       14.554         13.822       3.009       2.793       2.280       1.770       1.440       1.304       1.275       14.554         14.737       3.038       2.820       2.301       1.781       1.445       1.309       1.281       15.480         15.690       3.064       2.845       2.321       1.793       1.451       1.314       1.287       16.445         16.682       3.087       2.868       2.340       1.804       1.457       1.320       1.294       17.449         16.682       3.108       2.889       2.358       1.815       1.462       1.326       1.301       18.482         17.701       3.108       2.889       2.374       1.825       1.468       1.331       1.307       19.538         18.744       3.127       2.908       2.374       1.825       1.474       1.337       1.314       20.618         19.811       3.143       2.924       2.390       1.835       1.479       1.342       1.320       21.723         20.903       3.169       2.952       2.416       1.854       1.485 <t< td=""><td></td><td>2.955</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>		2.955										
13.822       3.009       2.793       2.200       1.770       1.445       1.309       1.281       15.480         14.737       3.038       2.820       2.301       1.781       1.445       1.314       1.287       16.445         15.690       3.064       2.845       2.321       1.793       1.451       1.314       1.287       16.445         16.682       3.087       2.868       2.340       1.804       1.457       1.320       1.294       17.449         17.701       3.108       2.889       2.358       1.815       1.462       1.326       1.301       18.482         18.744       3.127       2.908       2.374       1.825       1.468       1.331       1.307       19.538         19.811       3.143       2.924       2.390       1.835       1.474       1.337       1.314       20.618         19.811       3.143       2.924       2.390       1.845       1.479       1.342       1.320       21.723         20.903       3.157       2.939       2.416       1.854       1.485       1.347       1.326       22.856         23.169       3.180       2.964       2.428       1.862       1.490 <t< td=""><td></td><td>2.988</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>- <del>-</del>-</td><td></td><td></td></t<>		2.988								- <del>-</del> -		
14.737       3.038       2.820       2.301       1.761       1.451       1.314       1.287       16.445         15.690       3.087       2.868       2.340       1.804       1.457       1.320       1.294       17.449         16.682       3.087       2.888       2.358       1.815       1.462       1.326       1.301       18.482         17.701       3.108       2.889       2.374       1.825       1.468       1.331       1.307       19.538         18.744       3.127       2.908       2.374       1.825       1.468       1.331       1.307       19.538         19.811       3.143       2.924       2.390       1.835       1.474       1.337       1.314       20.618         19.811       3.143       2.924       2.390       1.845       1.479       1.342       1.320       21.723         20.903       3.169       2.952       2.416       1.845       1.485       1.347       1.326       22.856         22.022       3.169       2.952       2.416       1.854       1.485       1.347       1.332       24.018         23.169       3.180       2.964       2.439       1.877       1.499 <t< td=""><td>13.822</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	13.822											
15.690	14.737											
16.682       3.087       2.888       2.358       1.815       1.462       1.326       1.301       18.482         17.701       3.108       2.889       2.374       1.825       1.468       1.331       1.307       19.538         18.744       3.127       2.908       2.374       1.825       1.468       1.331       1.307       19.538         19.811       3.143       2.924       2.390       1.835       1.474       1.337       1.314       20.618         20.903       3.157       2.939       2.404       1.845       1.479       1.342       1.320       21.723         22.022       3.169       2.952       2.416       1.854       1.485       1.347       1.326       22.856         23.169       3.180       2.964       2.428       1.862       1.490       1.352       1.332       24.018         23.169       3.188       2.974       2.439       1.870       1.495       1.361       1.332       25.211         24.348       3.188       2.974       2.439       1.877       1.499       1.361       1.343       26.437         25.559       3.195       2.983       2.449       1.887       1.504 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>_</td></t<>												_
17.701       3.108       2.889       2.374       1.825       1.468       1.331       1.307       19.538         18.744       3.127       2.908       2.374       1.825       1.474       1.337       1.314       20.618         19.811       3.143       2.924       2.390       1.835       1.474       1.337       1.314       20.618         20.903       3.157       2.939       2.404       1.845       1.347       1.326       22.856         22.022       3.169       2.952       2.416       1.854       1.485       1.347       1.326       22.856         23.169       3.180       2.964       2.428       1.862       1.490       1.352       1.332       24.018         24.348       3.188       2.974       2.439       1.870       1.495       1.356       1.338       25.211         25.559       3.195       2.983       2.449       1.877       1.499       1.361       1.343       26.437         27.660       3.204       2.995       2.458       1.889       1.507       1.367       1.351       28.564         28.973       3.207       3.000       2.471       1.895       1.511       1.374 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>												
18.744       3.127       2.906       2.374       1.835       1.474       1.337       1.314       20.618         19.811       3.143       2.924       2.390       1.835       1.474       1.342       1.320       21.723         20.903       3.157       2.939       2.404       1.845       1.479       1.342       1.320       21.723         22.022       3.169       2.952       2.416       1.854       1.485       1.347       1.326       22.856         23.169       3.180       2.964       2.428       1.862       1.490       1.352       1.332       24.018         24.348       3.188       2.974       2.439       1.870       1.495       1.356       1.338       25.211         26.807       3.293       2.983       2.449       1.877       1.499       1.361       1.343       26.437         27.660       3.204       2.995       2.458       1.885       1.504       1.365       1.348       27.701         28.973       3.207       3.000       2.471       1.895       1.511       1.371       1.359       31.267         30.329       3.209       3.005       2.479       1.907       1.519 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>												
19.811       3.143       2.924       2.404       1.845       1.479       1.342       1.320       21.723         20.903       3.157       2.939       2.404       1.845       1.485       1.347       1.326       22.856         22.022       3.169       2.952       2.416       1.854       1.485       1.347       1.326       22.856         23.169       3.180       2.964       2.428       1.862       1.490       1.352       1.332       24.018         24.348       3.188       2.974       2.439       1.870       1.495       1.356       1.338       25.211         25.559       3.195       2.983       2.449       1.877       1.499       1.361       1.343       26.437         26.807       3.201       2.990       2.458       1.885       1.504       1.365       1.348       27.701         26.807       3.204       2.995       2.464       1.889       1.507       1.367       1.355       29.894         28.973       3.207       3.000       2.471       1.895       1.511       1.374       1.359       31.267         31.730       3.211       3.008       2.485       1.907       1.519 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>												
22.022       3.169       2.952       2.416       1.854       1.485       1.347       1.326       22.856         23.169       3.180       2.964       2.428       1.862       1.490       1.352       1.332       24.018         24.348       3.188       2.974       2.439       1.870       1.495       1.356       1.338       25.211         25.559       3.195       2.983       2.449       1.877       1.499       1.361       1.343       26.437         26.807       3.201       2.990       2.458       1.885       1.504       1.365       1.348       27.701         27.660       3.204       2.995       2.464       1.889       1.507       1.367       1.351       28.564         28.973       3.207       3.000       2.471       1.895       1.511       1.371       1.355       29.894         30.329       3.209       3.005       2.479       1.901       1.515       1.374       1.359       31.267         31.730       3.211       3.008       2.485       1.907       1.519       1.370       1.366       34.152         33.179       3.212       3.011       2.491       1.912       1.523 <t< td=""><td></td><td></td><td></td><td>• -</td><td></td><td></td><td></td><td>1.479</td><td></td><td></td><td></td><td>21.723</td></t<>				• -				1.479				21.723
22.022       3.189       2.964       2.428       1.862       1.490       1.352       1.332       24.018         23.169       3.180       2.964       2.439       1.870       1.495       1.356       1.338       25.211         24.348       3.188       2.974       2.439       1.870       1.495       1.361       1.343       26.437         25.559       3.195       2.983       2.449       1.877       1.499       1.361       1.348       27.701         26.807       3.201       2.990       2.458       1.885       1.504       1.365       1.348       27.701         27.660       3.204       2.995       2.464       1.889       1.507       1.367       1.351       28.564         28.973       3.207       3.000       2.471       1.895       1.511       1.371       1.355       29.894         30.329       3.209       3.005       2.479       1.901       1.515       1.374       1.359       31.267         31.730       3.211       3.008       2.485       1.907       1.519       1.370       1.366       34.152         33.179       3.212       3.011       2.491       1.912       1.523 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1.32</td><td></td></t<>											1.32	
24.348       3.188       2.974       2.439       1.870       1.495       1.356       1.338       25.211         25.559       3.195       2.983       2.449       1.877       1.499       1.361       1.343       26.437         26.807       3.201       2.990       2.458       1.885       1.504       1.365       1.348       27.701         27.660       3.204       2.995       2.464       1.889       1.507       1.367       1.351       28.564         28.973       3.207       3.000       2.471       1.895       1.511       1.371       1.355       29.894         30.329       3.209       3.005       2.479       1.901       1.515       1.374       1.359       31.267         31.730       3.211       3.008       2.485       1.907       1.519       1.377       1.362       32.686         33.179       3.212       3.011       2.491       1.912       1.523       1.380       1.368       35.670											1.33	
25.559									1.			
26.807 3.201 2.990 2.458 1.885 1.504 1.365 1.348 27.701 27.660 3.204 2.995 2.464 1.889 1.507 1.367 1.351 28.564 28.973 3.207 3.000 2.471 1.895 1.511 1.371 1.355 29.894 28.973 3.209 3.005 2.479 1.901 1.515 1.374 1.359 31.267 31.730 3.211 3.008 2.485 1.907 1.519 1.377 1.362 32.686 33.179 3.212 3.011 2.491 1.912 1.523 1.380 1.366 34.152 33.179 3.212 3.011 2.491 1.912 1.526 1.382 1.368 35.670				-					1.			
27.660     3.204     2.995     2.464     1.889     1.507     1.367     1.351     28.904       28.973     3.207     3.000     2.471     1.895     1.511     1.371     1.355     29.894       30.329     3.209     3.005     2.479     1.901     1.515     1.374     1.359     31.267       31.730     3.211     3.008     2.485     1.907     1.519     1.377     1.362     32.686       33.179     3.212     3.011     2.491     1.912     1.523     1.380     1.366     34.152       35.670												
28.973 3.207 3.000 2.471 1.895 1.511 1.371 1.355 29.894 30.329 3.209 3.005 2.479 1.901 1.515 1.374 1.359 31.267 31.730 3.211 3.008 2.485 1.907 1.519 1.377 1.362 32.686 33.179 3.212 3.011 2.491 1.912 1.523 1.380 1.366 34.152 33.179 3.212 3.011 2.491 1.912 1.526 1.382 1.368 35.670										-		
30.329 3.209 3.005 2.479 1.901 1.515 1.374 1.359 31.267 31.730 3.211 3.008 2.485 1.907 1.519 1.377 1.362 32.686 31.730 3.212 3.011 2.491 1.912 1.523 1.380 1.366 34.152 33.179 3.212 3.011 2.491 1.912 1.526 1.382 1.368 35.670						1.	895					
31.730 3.211 3.008 2.485 1.907 1.519 1.377 1.362 32.666 34.152 33.179 3.212 3.011 2.491 1.912 1.523 1.380 1.366 34.152 33.179 3.212 3.011 2.491 1.912 1.526 1.382 1.368 35.670	-											
33.179 3.212 3.011 2.491 1.912 1.523 1.380 1.368 35.670			_									
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				1 2								
				2 2	2.497	1.	917	1.526	1.	37.6	T # 20	0 0,50,0

MA	CH NO =	5.00	CONE ANGL	E = 9	•00 ANGL	E OF ATT	TACK =	5 • <b>0</b> 0
1.401	•				AT PLANE	ANGLES		
L/RN	0 •	30•	60•	90•	120.	150.	180.	S/RN
36.229	3.213	3.013	2-502	1.922	1.530	1.385	1.371	77 260
37.835		3.014		1.926			1.373	
	3.213			1.930			1.375	
41.221	3.213	3.015		1.933		1.391	1.377	
43.006			2.517	1.937				
	3.213		2.520					
46.127		3.016	2.521	1.942				
48.091	3.212		2.523					
50.128	3.212	3.016	2.525	1.948				
52.240	3.212	3.016	2.526	1.951	1.553			
54.431	3.212	3.016	2.527	1.953	1.555			
56.702	3.211	3.015	2.528	1.956	1.557		1.385	
59.058	3.211	3.015	2.528	1.959	1.559	1.404	1.386	
61.502	3.211	3.014	2.527 2.528 2.528 2.528	1.962	1.560		1.387	
64.036	Z.212	7 046	2 5 2 2	4 0/1	4 500	1-406	1.387	
66.665	3.212	3.013	2.528 2.528 2.527	1.967	1.563	1.407	1.387	
69.392	3.212	3.013	2.528	1.970	1.564	1.408	1.388	
72.221	3.212	3.013	2.527	1.972	1.565 1.566	1-409	1.388	
75.155	3.213	3.012	2.527	1.974	1.566	1.410	1.389	
	3.213	3.012	2.526	1.975	1.566	1.411	1.389	
	3.213	3.012	2.525	1.977	1.567	1.411	1.389	
	3.214	3.012	2.525	1.979		1.412	1.390	
			2.524			1.413		88.523
93.973	3.215 3.215		2.523					92.048
97720	3.219	3.012	2.522	1.982				95.704
101.606	3.216		2•521 2•521					
105.638	3.217		2.520					103.432
109.820	3.217 3.217 3.217		2.519					107.514
114.159	3.217		2.518	1.985				111.749
118.661	3.218		2.518	1.985	1.577			116.142 120.699
123.331	3.218	3.012	2.517	1.985	1.578			125.428
126.541	3.218	3.013	2.517 2.517	1.985	1.578	1.417		128.678
131.506	3.219	3.013	2.516	1.984		1.417		133.705
136 - 657	3.219	3.013	2.516	1.984	1.580	1.417		138.921
142.002	3.219	3.013	2.515	1.984	1.581	1.417		144.332
147-547	3.219	3.013	2.515	1.984	1.582	1.417		149.946
153.300	3.219	3.01-4	2.514	1.983	1.583	1.417		155.771
159.270	3-219	3.014	2.514	1.983	1.584	1.417		161.815
165.463	3.219	3.014	2.514	1.983	1.585	1.417		168.085
171 • 889	3.220	3.014	2.514	1.982	1.585	1.417		174.591
178-556	3.220	3.014	2:514	1.982	1.586	1.417		181.342
1-85 - 474	3.220	3.015	2.513	1.981	1.587	1.417		188.346
192.652	3.220	3.015	2.513	1.981	1-587	1-418		195.613
200.100	3,220	3.015	2.513	1.980	1.588	1.418		203,153

MA	CH NO =	10.00	CONE ANG	LE = 9.0	0 ANGL	E OF AT	TACK =	5.00
				TREAM AT		ANGLES		- 4-11
L/RN	0 •	30•	60.	90•	120•	150•	180.	S/RN
								4 4.44.
.844	12.786	12.246		9.198				
1.035	12.235	11.717		8.802				
1.219	11.670	11.170	9 • 8 9 8	8.385		6.286	6.011	
1.506	10.818	10.346		7.766				
1.843	9.942		8.388	7.113				
2.230	9.101		7.640	6.470				
2.656	8.382	7.968				4.588		
3.148		7.382		5.375		4.192		
3.673				4.942		3.848	3.737	
4.234		6.583		4.587	3.894	3.551		
4.825		6.343		4.305	3.621	3.293		
5.440		6.186	5.111	4.082	3-399	3.076		
6.072		6.097		3.907	3.218	2.898		
6.718	6.606	6.063		3.773		2.752	2.670	
7.372	6.656	6.073		3.669	2.952	2.631	2.550	8.024
8.199	6.773	6.137		3.574	2.633	2.506		8-861
8.864	6.900	6.221		3.519	2.758	2.424		9.534
9.531	7.050	6.327	4 <u>.•</u> -798	3.480	2.696			
10.199	7.217		4.834	3.453	2.645	2.299		
10.866	7.394			3.437	2.603	2.251		
11.533	7.580			3.429	2.568	2.210		
12.197	7.771	6.886		3.428	2.540	2.175		
12.859	7.964	7.042		3.433				_
13.520	8.157	7.201	5•:163	3.443	2.497	2.121		
14.179	8.348			3.457				
14.836	8.533			3.475				
15.494	8.711	7.677	5.422		2 • 45 9		1.975	
16.154						2.051	1.962	
16.817						2.039	1.950	
17.485	9.176					2.029	1.940	
18.332						2.018	1.930	
19.022					2.439	2.011	1.924	
19.726	9.528	8.518		3.676	2.440	2.005	1.918	
20.448	9.598			3.711	2.441			
21.191	9.649	8.704		3.748	2.444	1.996	1.911	
21.958	9.682	8.776		3.787	2 • 44 8	1.993	1.910	
22.753	9.698	8.831		3.827	2.452	1.991	1.910	
23.581	9.701	8.870		3.868	2.458	1.990	1.910	
24.446	9.692	8.893		3.911	2.464	1.989	1.912	
25.352	9.677	8.901		3.955	2.47.2	1.989	1.915	
26.305	9 • 657	8.896		4.001	2.480	1.990	1.918	
27.310	9.635	8.882		4.047	2.490	1.991	1.923	
28.373	9.612			4.094	250.0	1.993	1.929	
29.495	9.589			4-142	2.512	1.995	1.936	
30.688	9.568	8.812	6.865	4.190	2.525	1.997	1.943	31.630

	MACH	NO =	=	10.00	C	DNE	ANG	LΕ	=	ą,	. 00		AN	IGLE	0F	Δ	TTAC	CK	=	5.0	0
				D /	D	EDI	EE-S	TD	SA M	1	A T	p	LAN	ıF	ANG	l F	S				
L/R	) & I	0		30.	г		60.			0•	7 '		20.			0.		1	80.		S/RN
L/K	( IA	U d	•	30 •		,			•	•		-		•				_			
32.28	15	9.54	4	8.781		6.1	894		4.2	51		2.	543	3	2.0	01	1	ı.	954	33	-248
33.66		9.52		8.758			904		4.2			2.•	560	)	2.0	04	. :	<b>1</b> •	963	34	.640
35.13		9.51		8.738			905		4.3			2.	578	<b>3</b> .	2.0	07			972		.128
36.70	-	9.50		8.721			899		4.3	96		2.	597	•	2.0	10			982		•717
38.36		9.49		8.797		6.	887		4.4	43		2.	619	9	2.0				991		•399
40.08		9.49		8.698		6.	873		4.4	88			641		2.0				000		•145
41.87		9.49	1	8,691		6.	858		4.5				664		2.0				800		• 959
43.73		9.49	0	8.687		6.	842		4.5				688		2.0				015		.842
45.66	57	9.49	1	8.684			827		4.6				712		2.0				021		.796
47.67	71	9.49	2	8.684			812		4.6				736		5.0				027		825
49.75		9.49		8.684			799		4.6				760		2.0				032		931
51.91		9.49		8.684			786		4.6				783		2.0				036		.117
54.19		9.49		8.685			774		4.6				809		2.0				039		386
56.47		9.50		8.686			764		4.6				82		2.0				042		·741
58.89		9.50		8.687			754		4.7				84		2.0				044		.372
62.0		9.50		-8-688			743		4.7				87:		2.0				045		.030
64.6		9.50		8.689			736		4.7				891 901		2.0				047		789
67.3		9.51		8. 6.90			729		4.7				92!		2.1				047		.654
70 - 2:		9,51		8.690			723 717		4.7				94:		2.1				047		-628
73.19		9.51		8.691			712		4.6				950		2.1				047		7.715
76.2		9.52		8.691 8.692			708		4.6				97		2.				947		921
79.3		9.52		8.693			704		4.6				98		2.5				047		.249
82 • 6! 86 • 0		9.52		8.694			700		4.6				99		2.1				047		7.706
89+6	-	9.52		8.695			696		4.6				00		2.				047		L.294
93.2	_	9.53		8.696			694		4.6				.01		2.:				048		.021
97.1		9.53		8-698			691		4.6				.02		2.			2.	048	91	8.892
101.0		9.53		8-699			689		4.6				.03		2.	177	7	2.	049		2.911
105.2		9.53		8.701			687		4.6				. 03.		2.	184	4	2.	050		7.085
109.4		9.53		8.702			686		4.6			3.	.04	5	2.	189			051		1.421
115.0		9.53		8.704			685		4.6	528		3	. 05	1	2.	196			052		7.077
119.7		9.54		8 • 70 6		6.	685		4.6	522	<u>.</u>	3:	.05	6-	2.3				053		1.798
124.5		9.54	0	8.707	,	6.	685		4.6	516	•	3	• 05	9	2.						5.702
129.6		9.54	0	8.708	5	6.	685		4.6	510	1		. 06		2.						1,797
134.8		9.54	1	8.710	•	6.	686		4.6				.06		2.						7.088
140.2	76	9.54	1	8.711			687		4.5				- 06		2.						2.584
145.9	15	9.54	0	8.712			688		4.5				• 06		2.						8.294
151.7	73	9.54		8 • 7 1 3			690		4.				• 06			22!					1.225
157.8		9.54		8.713			692		4.				.06			22					0.386
164.1		9.53		8-714			694		4.				• 06		2.						6.785
170 • 7		9.53		8.715			696		4.				•06			23					3 <b>.4</b> 33 0 <b>.3</b> 39
177.5		9.53		8 - 715			698		4.5				.05			23°					7.512
184.6		9.53		8.715			700		4.				•06 •06			23† 24‡					4.963
192.0		9.53		8.715			702		4.				• 06 • 06			24!					4.685
201.6	12	9.53	Ö	8.715	,	<b>D</b> •	704		4.	707	-	J	• • •	J	2.	C 7	▼	-	- 0 r u		. + 502

MACH NO = 15.00 CONF ANGLE = 9.00 ANGLE OF ATTACK = P / P FREE-STREAM AT ANGLES PLANE L/PN 0. 30 . 60. 90. 120. 150 • 180. S/RN 27.870 26.675 23.631 19.952 . 844 16.768 14.723 14.024 1.414 26.551 25.412 22.507 19.013 16.005 1.030 14.077 13.424 1.603 23.677 20.942 17.701 1.276 24-758 14.964 13.236 12.656 1.851 18.777 22.259 21.263 15.890 13,503 1.648 12.021 11.528 2.228 16.631 2.095 19.834 18.910 14.057 12.000 10.370 10.770 2.680 2.505 18.055 17.179 12.678 15.028 10.866 9.836 9.517 3.096 3.081 16.280 15.418 13.364 11.201 9.598 8.721 8.456 3.679 3.718 14.953 14.082 12.045 9.979 8.518 7.761 7.541 4.324 4.403 14.039 13.133 11.057 9.017 6.955 5.017 7.627 6.778 13.553 12.603 6.246 4.977 10.465 8.413 7.050 6.408 5.598 13.190 12.170 9.921 7.824 5.846 5.716 6.469 5.688 6.347 6.470 13.043 11.938 9.548 7.380 5.400 5.247 6.013 7.111 9.303 5.654 5.041 7.231 13.067 11.862 7.046 4.892 7.881 7.993 11.907 9.158 6.793 13.224 5.369 4.749 4.599 8.652 8.599 12.014 13.423 9.098 6.637 5.183 4.554 4.401 9.266 9.351 13.739 12.213 9.080 6.487 4.991 4.352 4.193 10.028 10.094 14.109 12.467 9.110 6.377 4.834 4.185 4.024 10.779 14.523 9.179 6.298 4.-047 10.824 12.761 4.705 3.885 11.518 11.398 14.882 13.020 9.255 6.253 4.618 3.952 3.789 12,100 6.215 15 - 353 13.369 9.371 3.848 3.685 12.103 4.525 12.813 12.792 15.874 13.745 9.507 6.193 4.448 3.596 3.760 13.512 14.145 9.658 16.408 6.184 13.467 4.383 3.684 3.519 14.195 14.128 16.952 14.554 9.823 6.186 4.328 3.617 3.452 14.864 17.385 14.910 9.964 6.194 14.648 4.291 3.570 3.404 15.390 15.288 17.915 15.348 10.150 6.211 4.250 3.518 3.351 16.038 15.919 18.422 15.738 10.348 6.235 4.215 3.472 3.304 16.677 16.543 18.895 16.222 10.555 6.265 3.262 4.185 3.430 17.309 17.040 19.244 16.560 16.727 6.292 3.401 3.232 4.164 17.812 17.659 16.968 10.950 6.332 19.637 4.142 3.36.7 3.198 18.439 18.279 19.976 17.352 11.181 6.375 4.122 3.337 3.167 19.067 18.904 20.258 17.707 11.418 6.424 3.140 4.105 3.310 19.699 20.338 19.535 20.481 18.028 11.661 6.476 4.091 3.285 3.116 20.048 20.515 18.256 11.858 6.521 4.081 3.267 3.099 20.857 20.731 12.108 20.700 18.502 6.582 4.070 3.247 3.080 21.518 21,369 20.793 18.701 12.359 6.647 3.228 3.063 4.061 22.195 22.058 20.806 18.851 12.612 6.716 4.054 3.210 3.048 22.892 18.934 6.776 22.627 20.787 12.812 4.049 3.197 3.837 23.468 23.363 20-733 18.993 13.060 6.854 4.044 3.182 3.026 24.214 24.132 20.653 19.003 13.300 6.939 4.040 3.168 3.016 24.992 24.931 20.554 18.973 13.527 7.029 3.155 4.038 3.007 25.801 25.765 20-444 18.907 13.737 7.124 4.037 3.143 3.001 26.646 26.451 20.354 18.833 13.888 7-205 4.037 3.134 2.997 27.351 27.373 18.721 4.037 20-245 14.054 7.312 3.123 2.993 28.274 28:337 18.595 7.427 2.992 20-147 14.188 4.040 3.112 29.250 29.363 18.463 7.551 20.065 14.286 4.044 3.101 2.991 30.288

### NSHC/HOL/TR 75-45

MA	CH NO =	15.00	CONE ANGL	E = 9.01	0 ANGL	E OF ATT	ACK =	5.00
		P /	P FREE-ST	REAM AT	PLANE	ANCE CO		
L/RN	0.	30.	60 •	90.		ANGLES	400	o en ii
CYAN	0.	34 •	00•	90 •	120.	150•	180.	SZRN
30.232	20.012	18.360	14.336	7 • 656	4.048	3.092	2.992	74 460
31.385	19.962	18.245	14.362	7.796	4.056	3.081	2,994	31.168
32.602	19.930	18.152	14.352	7.944	4.067	3.070	2.997	32.336
33.891	19.911	18.082	14.309	8.099	4.081	3.058	3.002	33.568
34.981	19.903	18.043	14.256	8 • 227	4.096	3.048	3.007	34.873
36.428	19.901	18.013	14.173	8.398	4.119	3.036		35.976
37.986	19.904	18.002	14.077	8.552	4.149	3.023	3.013 3.020	37.442
39.670	19.911	18.003	13.978	8 • 708	4.187	3.023		39.019
41.500	19.920	18.014	13.884	8 • 851	4.234	3.012	3.027	
43.084	19.929	18.027	13.816	8.951	4.278	2.992	3.034	42.577
45.227	19.939	18.046	13.742	9.054	4.343		3.039	
47.486	19.949	18.068	13.687	9.128		2.982	3.045	46.350
49.841	19.956	18.090	13.648	9.175	4.416	2.976	3-048	48.637
51.796	19.960	18.103	13.624	9.179	4.495	2.972	3.048	51.021
54.334	19.965	18.116	13.601	9.206	4.562	2.971	3.047	53.001
56.981	19.970	18.122	13.585	9.202	4.650	2.973	3.045	55.571
59.741	19-975	18-124	13.565	9.187	4.740	2.979	3.042	58.251
62.621	19.981	1º.123	13.564	9.165	4.829	2.989	3.037	61:046
65.014	19.986	18-121	13.559	9.142	4.915	3.091	3 - 031	63.961
68.122	19.992	18-118	13.555	9.108	4.980	3.013	3.027	66.384
71.365	19.999	18.114	13.552		5.056	3.031	3.020	69.531
74.749	20.005	18-112	13.548	9-072	5.123	3.051	3.014	72.815
77.563	20.010	1-8-110		9.035	5.181	3.073	3 • 007	76.241
81.217	20.010	18.109	1.3.546	9.008	5.221	3.093	3.002	79.089
85.031	20.021	18-110	13.542	8.975	5.265	3.118	2.996	82.789
89.011	20.026	18-111	1-3.538 1-3.533	8.945	5.301	3.146	2.990	86.650
93.166	20.029	18.111	13.529	8 918	5.332	3.1.7.4	2'-985	
95.621	20 • 0.32	18.118		8 893	5.357	3.202	2.981	
101.109	20.034	18-122	13.526	8.874	5.373	3.224	2.978	98.385
105.795	20.036	18.127	13.523 13.521	8 • 852	5.391	3.252		102-929
110.688	20 • 0 38	18.132		8.831	5.405	3.279		107-674
114.756	20 • 0 3 5	18.136	13.520 13.520	8.812	5.416	3.305		112:•627
120.044	20.039	18.141	13.520	8.797	5.422	3.324		116.746
125.554	20.040	-		8.789	5.427	3.34.7		122.100
131.328	20 • 0 4 0	18.145	13.522	8.764	5.428	3 • 36 8		127.689
137.346	20 - 039	18-148	13.525	8.749	5.427	3.387		133.525
142.352	20.039	18: 151	13.528	8.735	5.424	3.405		139.618
		18-153	13.532	8.725	5.420	3.417		144.686
148.857 155.649	20.038 20.037	18-155	13.538	8.713	5.414	3.432		151.272
162.741	20.036	18.156 18.157	13.543	8.702	5.407	3.444		158-149
168.639	20.035		13.550	8 • 691	5.400	3.456		165.329
-	20.034	18-157	13.555	8 • 684	5.394	3.465		171.300
176.303 184.306		18-158	13.561	8 675	5.386	3.474		179.061
192.661	20 • 0 33	18-158	13.567	8 668	5.378	3.483		187.163
-	20.032	18.157	13.573	8 662	5.371	3.492	-	195.622
201.385	20.031	1-8-157	13.578	8 • 657	5.363	3•499	3.022	204.454

### NSHC/HOL/TR 75-45

MA	CH NO =	20:•.00	CONE AND	GLE = 9	.00 ANG	LE OF AT	TACK =	5 <b>.0</b> 0
			P FREE-		AT PLANE			
L/RN	0 •	30.	60.	90.	120.	150.	180.	SZRN
04.4		<i>t:</i> C 970	64 500	75 005	200	05 780	01 560	
.844	48.989	46.878	41.500	35.005	29.392		24.560	1.414
1.085	45.836	43.849	38.801	32.770	27.610		23,198	1.658
1.340	42.496	40.626	35.905	30.330	25.638	22.686	21.697	1.916
1.723	38.092	36.283	32.003 28.219	27.052	23.003	20.499	19.668	2.304
2.180 2.708	33.707 30.026	32.136 28.498	24.835			18.296	17.636	2.766
3.427	26.637	25.143	21.626			16.239	15,729	3.301
4.084	24.668	23.136	19.604		15.403 13.676	14.014 12.478	13.600 12.149	4.029 4.694
4.779	23.343	21.734	18.105		12.284	11.185	10.908	5.398
5.499	22.529	20.811	17.019			10.131	9.867	6.127
6.234	22.118	20.261			10.319	9.291	9.035	6.871
7.122	22.034	19.977	15.641			8.494	8.248	7.771
7.861	22.227	19.981	15.329			7.963	7.716	8.519
8.593	22.595	20.152	15.153			7.528	7.274	9.260
9.315	23.087	20.446				7.172	6.911	9.991
10.024	23.669	20.829				6.877	6.613	
10.854	24.468	21.373					6.319	
11.527	25.215	21.887					6.114	
12.183	26.036	22.455			_		5.936	
12.820	26.920	23.075					5.782	
13.440	27.852	23.744				5.916	5.646	
14.162	29.006	24.601				5.778		
14.747	29.971	25.350	16.446			5.678	5.403	15.491
15.320	30.917	26.116	16.732	10.022		5.588	5.312	16.070
15.881	31.826	26.890	17.036	10.042	6.724	5.509	5.231	16.639
16.434	32.681	27.660	17.359	10.071	6.657	5.437	5.158	17.198
16.980	33.469	28.416	17.699	10.108	6.616	5.372	5.092	17.751
17.629	34.308	29.289	18.128	10.162	6.562	5.303	5.021	18.468
18.167	34.910	29.977	18.503	10.214	6.522	5.251	4.968	18,953
18.706	35.416	30.620	18.891	10.272	6.487	5.203	4.921	19.499
19.247	35.823	31.209	19.291	10.336	6.454	5.159	4.878	20.347
19.794	36.132	31.736	19.704		6.425	5.118	4.839	20.600
20.459	36.377	32.279	20.212	10.498	6.393	5.072	4.797	21.274
	36.483			10.581			4.765	-
21.604	3€.509	32.940	21.086	10.670	6.348	5.002	4.735	22.433
22.200	36.463	33.149	21.530	10.766	6.328	4.970	4.706	23.136
22.815	36.355	33.276	21.975	10.868	6.310	4.939	4.680	23.659
23.580	36.155	3:3:-323	22.501	11.001	6.290	4.903	4.650	24.434
24.239	35.946	33.280	22.924	11.119	6.275	4.875	4.628	25.100
24.920	35.712	33.168	23.326	11.246	6.261	4.848	4.608	25.7-98
25.627 26.366	35.469 35.233	3-2-997	23.701	11.382	6.248	4.821 4.795	4.589	26.506
27,299	34.979	32.773 32.456	24.040 24.390	11.529	6.235		4.572 4.555	27.254
28.123	34.801	32.169	24.624	11.722 11.899	6.221 6.211	4.765 4.739	4,541	28.199 29.233
28.994	34.658	31.882	24.795	12.094	6.201	4.714	4.530	29.915
CO 0 374	04.090	01.002	671133	16.024	U += Z U J	40174	7.500	C 31 2T3

M	3 CH NO =	20.00	CONE	ANGL	Ξ=	9.00		ANGLE	OF	ATTA	CK =	5.00
		D 4	D E01	EE-ST	DC A M	AT	DI	ANE	ANGL	EC		
1 ADAL	"							. ANE.	150		180.	S/RN
L/RN	<b>U</b> •	30.	'	6ü•	90		10		150	<i>,</i> •	100.	37 KN
29.905	34.555	31.620	24.	899	12.30	15	6.1	92	4.68	38	4.521	30.837
30.849	34.489	31.397	24.		12.53		6.1		4.66	×	4.514	31.793
31.833	34.451	31.219	24.		12.77		6.1		4.63		4.509	32.789
33.076	34.435	31.066	24.		13.08		6.1		4.6		4.506	34.947
34.172	34.438	38.988	24.		13.36		6.1		4.5		4.505	35.158
35.335	34.449	30.951	24.		13.66		6.1		4.54		4.506	36.335
36.572	34.467	30.947	24.		13.9		6.2		4.5	16	4.508	37.588
37.897	34.490	30.968	24.	032	14.29	59	6.2	232	4.48	35	4.511	35.329
39.621	34.525	31.013	23.	779	14.6	<b>7</b>	6.2	276	4.4	+6	4.514	40.674
41.185	34.556	31-060	23.	590	14.87	72	6.3	328	4.4	13	4.517	42.258
42.884	34.584	31.114	23.	428	15.1	04		396	4.3		4.518	43.978
44.730	34.602	31.172	23.		15.29			82	4.3		4.517	45.847
46.682	34.612	31.233	23.		15.4			587	4 . 3		4.512	47.823
49.167	34.614	31.294	23.		15.5			736	4.29		4.502	50.339
51.376	34.613	31.328	23.	-	15.5				4.2		4.492	52.577
53.737	34.613	31.345	23.		15.54				4.2		4.480	54.966
56.239	34.617	31.347	23.		15.5			224	4.2		4.466	57.500
58.845	34.625	31.339	23.		15.4				4.2		4.448	60.138
62.114	34.635	31.323	23.		15.3				4.2		4.425	63.448
64.964	34.644	31.309	23.		15.2			302	4.2		4.406 4.387	66.333 69.338
67.932 71.023	34.655	31-295	23.		15.10 15.0				4.2		4.367	72.458
74.243	34.667 34.680	31.283 31.273	23. 23.		14.9			231	4.3		4.348	75.728
77.597		31.267	23.		14.9			337	4.3		4.330	79.124
81.807	34.703	31.266	23.		14.8				4-4		4.309	83.387
85.477	34.710	31.270	23.		14.7			510	4.4		4.292	87.102
89.301	34.715	31.276			14.7			567	4.4		4.277	90.974
93.285		31.285			14.6			512	4.5		4.263	95.007
97.436		31.295			14.6			648	4.5		4.251	99.210
102.648		31.307		-	14.6			580	4.6		4.239	104.487
107.193		31.317			14.5			598	4.7		4.230	109.989
111.930	34.729	31.327	23.	054	14.5	47		798	4.7	60	4.224	113.885
116.867	34.730	31.335	23.	052	14.5	22	8.7	70.9	4.8	19	4.219	118.883
122.012	34.731	31.343	23.	054	14.4	99	8.7	701	4.8	57	4.216	124.393
128.475	34.731	31.350	23.	058	14.4	73	8.0	<b>68</b> 4	4.9			130.636
134.110	34.731	31.355			14.4			665	4.9			136.341
139.984		31.358	23.		14.4			643	4.9			142.288
146.105	34.730		23.		14.4			622	5.0			148.486
152.486	34.729		23.		14.3			602	5.0			154.946
160.498	34.727	31.363			14.3			580	5.0			163.058
167.485					14.3			562	5.1			170.133
174.767					14.3			544 536	5.1			177.505
182.356					14.3			526	5.1			185.189
190.265					14.3			508 497	5.1			193.196 203.252
200,196	34.719	31.361	∠3•	162	14.3	T.44	0.0	487	5.1	30	4 + 507	という・インと

### NSHC/HOL/TR 75-45

MA	CH NO =	25.00	CONE ANG	LE = 9.	DO ANG	LE OF AT	TACK =	5.00
		Р/			T PLANE			
L/RN	0.	30•	60•	90•	120.	150.	180.	S/RN
							70 400	
.844	76.138	72.849	64.472	54.363	45.630	40.008	38.106	1.414
1.084	71.171	68.079	60.224	50.842		37.694	35.964	1.657
1.338	65.931	63.022	55.683	47.018	39.728	35.146	33.609	1.914
1.804	57.503	54.878	48.359	48.876	34.767	31.025	29.784	2.386
2.273	50.898	48.493	42.520	35.874	30.667	27.628	26.661	2.861
2.928	44-408	42.086	36.540	30.656	26.262	23.834	23.097	3.524 4.144
3.540	40.337	38.026	32.614	27.094	23.153	21.078	20.464	4.951
4.337	36.969	34.572	29.101	23.749	20.099	18.340	16.056	5.660
5.038	35.187	32.656	27.003	21.636	18.110 16.266	16.466 14.693	14.300	6.536
5.903	33.987	31.232	25.240	19.752 18.586	15.078			7.276
6.633	33.593	30.603 30.354	24.241	17.535	13.970			8.163
7.510 8.234	33.674	30.469		16.878	13.243			
9.089	34.086 34.866			16.283	12.546			
9.787	35.679		22.783	15.911	12.077			
10.603	36.811			15.578		9.998		
11.263	37.886			15.372	11.300	9.661		
12.030	39.336			15.192	10.984			
12.648	40-667			15.084	10.763			
13.248	42.086	35.732		15.008	10.703			13.973
13.944	43.864	-		14.951		8.638		14.677
14.506	45.370			14.927	10.243			
15.162	47.161	39.556	25.027	14.922	10.099		7.892	15.910
15.694	48.604	40.745		14.934	9.993	8.182	7.764	16.450
16.320	50: 238	42.183		14.966	9.882	8.048	7.627	17.083
16.833	51.495	43.364	26.504	15.005	9.799	7.949	7.525	17.602
17.440	52.849	44.739	27.127	15.066	9.711	7.841	7.416	18.217
17.942	53.834	45.834	27.672	15.127	9.644	7.759	7.334	1-8 - 725
18.541	54.830	47.066	28.356	15.212	9.572	7.669	7.246	
19.042	55.499	48.010	28.950	15.291	9-518	7.600	7.179	
19.645	56.109	49.029		15.397	9.458	7.523	7.107	
20.154	56.460	49.770		15.493	9.413	7.462	7.051	
20.774	56.704	50.519	31.110	15.618	9.363	7.393	6.988	21.593
21.302	56.771		31.780		9.325	7.338	6.939	22.127
21.952	56.701	51.459	32.598	15.877	9.283	7.275	5.883	22.786
22.512	56.529	51.693	33.288	16.009	9.250	7.225	6.838	23.352
23.088	56.268	51.804	33.977	16.149	9.219	7.176	6.795	23.935
23.797	55.864	51.784	34.786	16.330	9.184	7.120	6.747	24.654
24.407	55.475	51.643		16.491	9-157	7.075	6.709	25.271
25.167	54.981	51.338	36.174	16.701	9.125	7.022	6.668	26.040
25.826	54.577	50.984	36.743	16.891	9.199	6.980	6.635	26.708
26.655	54.133	50.466	37.355	17.143	9.069	6.929	6.600	27.547
27.382	53•:814	49.985	37.789	17.375	9.043	6.888	6.572	28.283
28.304	53,506	49.391	38,,200		9.012	6.838	6.543	29.217
29.107	53.319	48.927	38.434	17.972	8.•987	6.797	6.521	30.029

MACH NO = 25.00 CONE ANGLE = 9.00 ANGLE OF ATTACK = 5.00

		., ,,,		Jone And		TO ANOL	0	AON -	J • 0 0
			P /	P FREE-S	TREAM !	AT PLANE	ANGLES		
L/	RN	9.	30 -	60.	90•	120.	150 •	180.	SZRN
30.1		53.176	48.447	38.578	18.346	8.957	6.748	5.500	31.,035
30.9	59	53.112	48.120	38.583	18.685	8.933	6.707	6.486	31.905
32.0		53.087	47.824	38.462	19.127	8.908	6.655	6.474	32.993
32.9		53.093	47.658	38.265	19.526	8.892	6.611	6.466	33.945
34.1		53-123	47.552	37.934	20.039	8.878	6.555	5.460	35.151
35.2		53.158	47.529	37.600	20.491	8 • 87-4	6.507	6.457	36.217
36.5		53.210	47.563	37.160	21.054	8.880	6.447	6.456	37.584
37.7		53.261	47.627	36.787	21.530	8 • 898	6.393	6 • 455	38.808
39.3		53.330	47.728	36.364	22.087	8.937	6.325	6.454	40.393
40.7		53.387	47.824	36.050	22.521	8 • 98 9	6.267	6.451	41.826
42.29		53.434	47.928	35.785	22.910	9.062	6.209	6.446	43.377
44.2		53.467	48.061	35.550	2.3.285	9.181	6.141	6.436	45.364
45.90		53.477	48.168	35.422	23.509	9.306	6.087	6.422	47.093
48-13		53.471	48.272	35.326	23.676	9.490	6.030	6.400	69.272
50.00		53.462	48.334	35.283	23.742	9.676	5.990	6.381	51.189
52.47 54.57		53.453	48.369	35.259	23.747	9.936	5.950	6.354	53.636
57.37		53.452 53.456	48.369 48.342	35.257	23.695	10-183	5.923	6.327	55.819
59.90		53.462	48.308	35.271	23.570	10.515	5.899	6.291	58.648
63.15		53.474	48.268	35.293 35.328	23.417 23.195	10.813	5.889	6.259	61.212
65.97		53.492	48.238	35.357	23.005	11.176 11.465	5•885 5•890	6.216	64.497
69.5		53.517	48.205	35.380	2:2.793	11.780	5.908	6.134	67.358 70.945
72.60		53.539	48.185	35.390	22.641	12.013	5.931	6.099	74.067
76.4		53.562	48.172	35.391	22.489	12.253	5.970	6.056	77.983
79.8		53.576	48.170	35.385	22.382	12.428	6.011	6.023	81.392
84.0		53.589	48.179	35.375	22.271	12.579	6.072	5.986	85.667
87.7		53.596	48.193	35.364	22.190	1.2.686	6.130	5.957	39.390
91.56		53.603	48.209	35.351	22.117	12.770	6.195	5.930	93.265
96.36		53.608	48.230	35.335	22.042	12.848	6.279	5.901	98.126
100.54	47	53.611	48.248	35.321	21.988	12.894	6.355		102.360
1-05-79		53.613	48.269	35.306	21.934	12.927	6.449		107.672
110.36		53.614	48.284	35.297	21.897	12.936	6.529	5.839	112.300
116.09		53.615	48.301	35.292	21.859	12.924	6.625	5.821	118.106
1-21-09	95	53 • 617	48.311	35.293	21.830	12.894	6.703		123.164
127.36		53.618	48.321	35.300	21.797	12.844	6•793 <sup>.</sup>		129511
132.82		53.619	48.327	35.310	21.768	12.796	6.864		135-040
139.67		53.619	48.333	35.325	21.734	12.739	6.945		141.978
145.64		53.618	48.335	35.341	21.705	12.597	7.008		148-021
153.13		53-617	48.337	35.361	21.672	12.653	7.078		155-604
159.66		53.615	48.338	35.380	21.646	12.619	7.132		162.209
167.84		53.613	48.337	35.402	21.619	12.580	7.191		170-496
174.97		53.610 57.600	48.337	35.420	21.599	12.548	7.236		177-716
183•92 191•71		53.608	48.335	35.441	21.578	12.510	7.284		186.772
		53.605	48-334	35•456	21-564	12-479	7 - 31-8		194.652
2.01 - 48	י סכ	53.603	48.332	35.473	21.551	12.443	7.354	りゅひ15	204.559

M	/CH NO =	30.00	CONE	ANGLE	=	9.00	1A I	1GLE	0F	ATTA	uK =	5.00
				E-STRE			PLAN		NGL			
L/RN	0.	30.	6	0.	90	•	120.	•	150	•	180.	SZRN
		104.598	92.5		3.02		55.472		• 40		4.678	1.414
1.084	102.140	97.597	86.4		2 • 93		51.41		• 05		1.566	1.657
1.407	92.563	88.459	78.1		98		55.791		• 40		7.262	1.984
1.802	82.421	78.654	69.3		3.56		9.807		• 43		2.657	2.384
2.371	71.166	67.729	59.2		9•99		+2.777		• 61		7.305	2.961
3.039	62.203			132 42	2.74		6.609		• 23		2.215	3 • 637
3,660	¤6∙667		45.6		7 • 80		32.27		• 40		3.567	4.265
4.463	52.122	48.669	40.8	327 3	3.19	5 6	28.051	l 29	•59	1 2	4.955	5.078
5.307	49.391	45.687	37.4	95 29	9.81		24.838		• 54	3 2	1.970	5.933
6.028	48,170	44.182	35.5	60 27	7.72	0 2	22.769	9 20	• 55	1 2	0.000	6 • 663
6.899	47.668	43.261	33.9	76 25	5.83	6 8	20.843	3 18	• 66	2 1	8 • 138	7.545
7.767	47.964	43.070	32.9	90 24	4.45	4 1	19.372	2 17	.17	9 1	6.656	8.423
8.481	48.549	43.327	32.5	09 23	3.58	4 1	18.492	2 16	.18	7 1	5.650	9.146
9.322	49.819	43.986	32.2	236 22	2.79	3 1	7.465	5 15	. 22	6 1	4.673	9.998
10.006	51.092	44.736	32.2	201 22	2.29	7 1	16.830	14	. 57	1 1	4.015	10.690
10.803	52.642	45.811	32.3	25 25	L . 84	8 1	16.204	+ 13	. 91		3.360	11.497
11.573	54.538	47.058	32.5	82 2	1.52	0 1	.5.694	13	.37	1 1	2.814	12.277
12.193	56.312	48.234	32.8	374 2:	1.31	8 1	15.339	1 2	. 98	3 1	2.423	12.905
12.911	58.644	49.810	33.2	98 21	1.14	3 1	4.97	3 12	. 58	5 1	2.018	13.632
13.602	61.149	51.553	33.7	95 25	1.02	5 1	4.678	3 12	. 24	5 1	1.671	14.331
14.158	63.289	53.111	34.2		96		4.463		-99		1.420	14.894
14.805	65.885	55.077	34.8	378 21	92	3 1	4.239	3 11	.73	9 1	1.155	15.550
15.432	68.428	57.110	35.5	558 28	91		4.044		.51	3 1	0.924	16.184
15.942	70.459	58.826	36.1	.71 20	95	4 1	3.901	l 11	.34	5 1	0.753	16.700
16.541	72.740	60.878	36.9		97	6 1	13.748	3 11	.16	5 1	0.569	17.307
17.129	74.808	62.886	37.7		1.04		13.612		.00	5 1	0.407	17.902
17.613	76.341	64.592	38.5	34 2	1.10	8 1	3.51	10	. 88	3 1	0.285	18.392
18.189	77.930	66.345	39.4	63 2	1.20	5 1	13.398	3 10	.74	9 1	0.153	18.975
18.668	79.033	67.779	40.2		1.29		13.314	+ 10	. 54	7 1	9.053	19.460
19.242	80.086	69.357	41.2		1.42		13.221	L 10	•53	1	9.944	20.042
19.821	80.847	70.753	42.3		1.56		13.137	7 10	. 42	4	9.844	20.627
20.308	81.268				1.68		3.072		•33		9.766	21.121
20.903	81.531	72.778	44.3	60 2:	1 . 85	4 1	13.001	10	.24	0	9.677	21.723
21.512	81.547	73.561	45.5	10 2	2.03	3 1	12.935	5 10	.14	7	9.592	22.340
22.033	81.387	74.030	46.4		2.19		12.883	3 10	.07		9.524	22.867
22.678	81.004	74.367	47.8		2.40		12.825		. 98		9.445	23.520
23.341	80.454	74.459	48.8		2 • 62		2.771		.90		9.371	24.192
23.909	79.899	74.352	49.8		2.82		12.728		.83		9.312	24.766
24.611	79.170	74.014	50.9		3.08		12.67		. 75		9.245	25.477
25.218	78.551	73.571	51.7		3.31		12.637		• 69		9.193	26.092
25.977	77.844	72.376	52.7		3.62		2.588		.61		9.135	26 • 860
26.775	77.217	72.051	53.6		3 • 96		12.53		.54		9.081	27.668
27.474	76.777	71.310	54.2		4.28		2.496		.48		9.040	28.376
28.356	76.352	70.425	54.8		4.71		12.441		-41		8-996	29.270
29.267	76.089	69.632	55.1		5.18		2.391		.34		8.958	30.192
				'		•						

M	ACH NO =	30.00	CONE AN	NGLE =	9.00	ANGLE	OF A	TTACK =	5.00
		D /	P FREE-	-CTDEAM	AT	PLANE	ANCLE	•	
L/RN	0-•	30.	60			120.	ANGLE		S/RN
277.	0,	004	000	•	•	1500	190•	100.	SZKN
30.048	75.950	69.065	55.307	7 25.6	15 12	•347	9.287	8.932	30.983
31.019	75 - 874	68.518	55.28			•296	9.216		31.965
32.033	75.858	58.121	55.063			.249	9.142		32.992
32.919	75.897	67.908	54.743			•215	9.078		33.889
34.038	75.958	67.783	54.227			•18ü	8.998		35.021
პ5∙229	76.035	67.778	53.608	8 28.8		•156	8.914		36.228
36.286	75.110	67.843	53.051	29.5	27 12	•148	8.839		37.298
37•645	76.211	67.977	52.378	30.3	52 12	•156	8.743	8.846	38.674
38.865	76.303	68.118	51.846		33 12	.181	8.659	8 • 840	39.909
40.448	76.409	68.307	51.276		10 12	•238	8.554	8.830	41.512
42.178	76.488	68.508	50.813	-		•336	8.447	8.816	43.263
43.589	76.527	68.682	50.539			•449	8.360		44.793
45.573	76.537	68.875	50.314		-	•623	8.261		46.701
47.547	76.521	69.032	50.188			• 847	8.172		48.700
49.273	76.502	69.126	50.13		_	•076	8.108		50.447
51.451	75.481	69.182	50.112			• 400	8.041		52.662
53.802	76.474	69.181	50.124			•782	7.983		55.033
55.894	76.474	69.147	50.151			•143	7.944		57.150
58.605	76.479	59.084	50.203		-	•620	7.909		59.896
61.063	76.488	69.025	50.259			.046	7.889	_	62.384
64.282	76.597	68.954	50.319			•573	7.877		65.642
67.694	76.543	68.895	50.373			•075	7.880		69.098
70.664	76.578	68.858	50.399	5.		•458	7.894		72.105
74.385	76 - 61-4	68.831	50.408			•863	7.926		75.872
78.287 81.582	76•641 75•657	58.826	50.404		F	•206	7.975		79.822
85.937	76 • 6:70	68.835	50.393	-		.442	8.028		83.259
90.399	75.580	68.859 68.890	50.374 50.350			•671	8.107	_	87.568
94.283	75.536 75.536	58.918	50.328			•846 •956	8.200		92.085
99.153	75.690	68.952	50.299		_	• 05 0	8.403	_	96.018
104.261	76.591	68.983	50.27			•103	8.528	-	100.948
108.709	76.693	59.007	50.256		-	.114	8.637		110.624
114.286	76.596	59.030	50.249			•086	8.771		116.270
10.142	76.698	69.046	50.244	_		•030	8.884		121.187
125.231	76.701	69.060	50.251			•936	9.017		127.352
131.620	76.703	69.969	50.266			.833	9.148		133.820
137.182	76.703	69.075	50.284			•752	9.253		139.452
144.157	76.703	69.079	50.311	_	-	•668	9.374		146.513
151.473	76.702	69.081	50.341			•594	9.489	-	153.921
157.844	76.701	69.082	50.368		-	•538	9.550		160.371
165.831	76.697	69.981	50.401			.474	9.680		168.458
174.210	76.593	69.080	50.433			.414	9.770		176.941
181.504	76.690	69.079	50.458			•366	9.837		184-326
190.650	76.686	69.077	50.485	30.4		.310	9.907		193.586
200.244	76.682	69.075	50.509		-	. 255	9.965		203.300

MAG	CH NO =	3.50	CONE	ANGLE	= 10.00	ANO	GLE OF	ATTACK =	5.00
		P /	P FRE	F-STRE	EAM AT	PLANE	E ANGL	FS	
L/RN·	0.	30.		50.	90.	120.	150		SZRN
LIKN	0.	30 •	•	30 •	50 •	1200	170	1004	<b>37</b> KK
.826	2.285	2.203	1.9	392 1	L.730	1.497	1.34	4 1.291	1.396
•914	2.275	2.192	1.9			1.475			
1.013	2.310	2.226	2.0			1.503			
1.181	2.306	2.221	2.0		L.740	1.509			
1.309	2.294	2.209			1.730	1.503			
1.526	2.265	2.181			1.709	1.488	-		
1.774	2.228	2.144			1.681	1.468			
1.957	2.201	2.118			1.660	1.452			
2.261	2.151	2.070			1.622	1.426			
2.599	2.115	2.031			1.586	1.401			
2.845	2.097	2.012			1.567	1.384			
3.242	2.074	1.990			1.545	1.361			
3.675	2.061	1.975			1.526	1.343			
4.142	2.056	1.968			1.511	1.331			
4.474	2.057	1.967	_		1.504	1.325			
4.999	2.062	1.970			1.498	1.318			
5.559	2.072	1.977			1.495	1.314			
5.950	2.080	1.984	-		1.495	1.313			
6.566	2.095	1.996			1.497	1.313	-	-	
7.214	2.110	2.009			1.501	1.316			
7.664	2.121	2.019			1.504	1.318			
8.367	2.138	2.033			1.510	1.322			
9.101	2.154	2.047			1.516	1.327			
9.868	2.169	2.061			1.522	1.332			
10.396	2.178	2.069			1.527	1.336			
11.216	2.191	2.082			1.533	1.341			
12.069	2.204	2.093			1.539	1.346			
12.655	2 + 21-1	2.100			1.543	1.349	-		_
13.562	2.221	2.110			1.549	1.354			
14.502	2.230	2.118			1.554	1.358			
15.148	2.236	2.124			1.558	1.361			
16.147	2.243	2.131			1.563	1.365		-	
17.182	2.250	2.138			1.567	1.369			
17.893	2.254	2.142	-		1.570	1.371			
18.991	2.259	2.147			1.574	1.375			
20.130	2.263	2.152			1.578	1.378			
21.311	2.267	2.156	-		1.581	1.380			
22.123	2.269	2.158	_		1.583	1.382			
23.378	2.273	2.162			1.586	1.385			
24.681	2.275	2.165			1.589	1.387			
25.578	2.277	2.167			1.591	1.388	<b>,</b> -		
26.967	2.279	2.169			1.593	1.390	_		
28.410	2.280	2.171			1.595	1.392			
29.405	2.281	2.173			1.597	1.393		-	
30.947	2.282	2.174			1.599	1.395			

MAC	CH NO =	3.50	CONE AN	IGLE =	10.	00 A1	NGLE OF	ATTACK =	5.00
							NC 41161		
1 40N	•		P FPEE						C (DN
L/RN	0 •	30•	60	•	90•	120	• 150	180.	S/RN
32.552	2.283	2.176	1.90	l 1.	601	1.39	7 1.31	4 1.299	33.612
34.224	2.284	2.177	1.90	3 1.	602	1.39	8 1.31	5 1.300	35.309
35.377	2.285	2.178	1.90	1.	603	1.39	9 1.31	6 1.301	36.479
37.166	2.285	2.178	1.90	5 1.	605	1.40	0 1.31	7 1.302	38.296
39.030	2.286	2.179		3 1.	606	1.40	1 1.31	8 1.302	40.190
40.317	2.286	2.180	1.90	9 1.	607	1.40	2 1.31	8 1.303	41.496
42.315	2.286	2.180	1.91	1.	609	1.40	3 1.31	9 1.304	43.524
44.397	2.286	2.181	1.91	1.	61.0	1 - 40	4 1.32	0 1.304	45.639
45.835	2.287	2.181	1.91	2 1.	610	1.40	5 1.32	0 1.304	47.099
48.067	2.287	2.181	1.91	3 1.	612	1.40	5 1.32	1.305	49.366
50.395	2.287	2.182	1.91	4 1.	613	1.40	6 1.32	2 1.305	51.730
52.824	2.287	2.182	1.91		614	1.40			
54.500	2.287	2.182	1.91		614	1.40			
57.105	2.288	2.182	1.91		616	1.40			
59.821	2.288	2.182	1.91		617	1.40			
61:•697		2.182	1.91		617	1.40			
64.612		2.182	1:91		618	1.40			
67.653		2.182	1.91		619	1.41			
69.4752		2.182			620	1.41			
73.015	2.289	2.182	1.91		621	1.41			
76-419	2.289	2.182	1.91		622	1.41			
78.770		2.182		7 1.	622	1.41			
		2.182		7 1.	623				
		2.182			623				
90.212		2.182			624				
_		2.182			624	1.41			
97-•227	2.290	2.182			625	1.41			
101.680	2.290	2.182			625	1.41			103.806
104.756 109.536	2.290	2.182 2.182	-		626	1.41	-		106.929 111.783
114.524	2•291 2•291	2.182	1 • 91 ! 1 • 91 !		626 626	1.41			116.843
117969	2.291	2.182	1 91		625	1.41			120.346
123.323	2.291	2.182	1.91		626	1.41			125.783
128.910	2.291				626				131.456
134.740	2.291	2.183	1.91		626	1.41			137.375
138.766	2.291	2.183	1.91		626	1.41			141.464
145.024	2.291	2.183	1.91		626	1.41			147.819
151-555	2.291	2.183	1.91		626	1.41			154.450
156.065	2.291	2.183	1.91		626	1.41			159.030
163.076	2.291	2.183	1.91		626	1.41			166.149
170.392	2.291	2.183	1.91		626	1.41			173.578
175.445	2.291	2.183	1.91		626	1.41			178.709
183.299	2.291	2.183	1.91		626	1.41			186.684
191.495	2.291	2.183	1.91		626	1.41			195.007
200.048	2.291	2.183	1.91		626	1.41			203.692
			–		-	· · · <del>-</del>			· -

	MACH	NO =	5.00	CONE	ANGL	.E =	10	.00	ANGLE	OF	ATT	ACK	=	5.00	
			D /	D- E0	REE-ST	rRFA	M	ΔT	PLANE	ANGL	.ES				
	<b>. A1</b>	0.	30 •	ГГ	60.		90•	•	120.	150		1	80.	SZRN	
L/R	( IN	₩.	30 •				• •								
. 82	26	3.949	3.795	3.	401	2.	918		2.493	2.2			121		
•96		3.899	3.746		351	2	868		2.446	2.17			080		
1.07		3.850	3.699	3	311		840		2.431	2.16			075		
1.27		3.743	3.594	3	213		755		2.364	2.1			028		
1.50		3.614	3.468		097		658		2.285	2.04			969		
1.79		3.477	3.334		973		. 551		2.199	1.9			906		
2.0		3.345	3.203		851		. 443		2.110	1.9			840 778		
2.3	49	3.210	3.071		.724		. 333		2.022	1.8			715		
2.6	90	3.109	2.967		.620		. 237		1.938	1.7			650		
3.0	59	3.027	2.885		•536		. 157		1.864	1.7			591		
3.4	55	2.968	2.822		. 467		087		1.800	1.5			543		
3.8	77	2.929	2.778		• 415		.030		1.745	1.5			492		
4.4		2.904	2.746		. 368		972		1.685	1.5			460		
4.9		2.903	2.738		. 346		. 942		1.650 1.623	1.4			432		
5•4		2.914	2.742		• 336		. 919		1.602	1.4			409	=	
5.9		2.934	2.755		. 334		• 905		1.587	1.4			391		
6.5		2.961	2.776		• 338		896		1.577	1.4			378	-	
7.0		2,995	2.802		. 349		• 893 • 893		1.570	1.4			370	=	
7.6		3.032	2.832		. 363		• 897		1.566	1.4			365		
8 • 2		3.072	2.865		. 381	-	. 904		1.565	1.4			362		
8 • 8		3.113	2.980		.402	_	. 913		1.566	1.4			36		
9.4		3.154	2.936		. 448		923		1.568	1.4			361		
10.1		3.194	2.972		480		938		1.574	1.4			. 365		
11.0		3.245	3.018 3.051		2504		951		1.579	1.4			. 36		
11.7		3.281	3.08.2		• 527		964		1.585	1.4			. 373		)
12.4		3.314	3.11.1	-	2.550		97		1.592	1.4		1	.379	9 13.983	;
13.2		3.344 3.372	3.138		.572		991		1.598		25	1	. 38!	5 14.775	
14.0		3.397	3.163	-	• 593		.00		1.606	1.4	32		• 39:	1 15.596	
14 • 8 15 • 6		3.419	3.189		2.613		. 01		1.613	1.4	¥38	_	. 39		
16.5		3.439	3.20		2.632		. 02		1.620	1.4	444		. 40		
17.4		3.457	3.22		2.649		2-03		1.627		<b>451</b>		• 41		
18.3		3.473	3.24		2.665		2.05		1.635		458		• 42		
19.3		3.486	3.25	_	2.681		2.06	2	1.641		464		• 42		
20.6		3.501	3.27		2.699	2	2.07	5	1.650		472		.43		
21.6		3.510	3.28		2.711	7	2.08	5	1.656		478		. 44		
22•		3.517	3.29		2.723	7	2.09	4	1.662		483		• 45		
23.		3.522	3.30		2.733	-(	2.10	2	1.668		488		•45		
24.6		3.525	3.30		2.743		2.11		1.67-3		493		. 46		
26 • :		3.528	3.31		2.751		2.11		1.678		498		•46		
27		3.529	3.31	5	2.759		2.12		1.683		502		• 47		
28.		3.530	3 • 31		2.766		2.13		1.688		506		.47		
29.		3.531	3.31		2.772		213		1.692		509		. 48		
31.		3.532			2.778		2.14		1.697		513 514		• 48 • 48		
32.		3.532	3.32	<u>1</u> -	2.783		2.14	9	1.7-0.1	1.	<b>5</b> 16	7	. • 40	33.750	٠

M	/CH NO =	5.00	CONE	ANGL	E = 1	0.00	ANGL	E OF	ATTA	CK =	5.00
		D /	ם בט	EE-011	REAM-	ΛT	PLANE	ANGL	£6		
L/RN	0.	30.		60•	90		120-	150		180.	S/RN
C/ \II	0 •	300	•		30	<del>-</del>					
34.395	3.532	3.322	2.	788	2.15		1.706	1.52	-	1.491	35.483
35.876	3.532	3.322		791	2.16		1.710	1.52	-	1.494	36.987
37.410	3.532	3.322		794	2.16		1.713	1.52		1.496	38.544
38.998	3.531	3.323		796	2.16		1.716	1.52		1.498	40.157
40.645	3.531	3.322		798	2.17		1.720	1.52		1.500	41.829
42.350	3.531	3.322		799	2.17		1.722	1.53		1.502	43.561 45.356
44.119	3.531	3.322		800	2.18		1.725	1.53 1.53		1.504	47.217
45.951	3.530	3.322		800	2.18		1.728 1.730	1.53		1.506	49.146
47.851	3.530	3.321		801 801	2.18 2.19		1.732	1.53		1.507	51.146
49.820	3.530	3.321 3.320		801	2.19		1.734	1.54		1.508	53.219
51.862 54.701	3.530 3.531	3.320		801	2.19		1.737	1.54		1.509	56.102
56.922	3.531	3.320		801	2.20		1.738	1.54		1.510	58.357
59.225	3.531	3.319		800	2.20		1.740	1.54		1.510	60.696
61.612	3.531	3.319		799	2.20		1.741	1.54		1.511	63.120
64.087		3.318		799	2.20		1.743	1.54		1.511	65.633
66.654		3.318		798	2.20		1.744	1.54	7-	1.512	68.239
69.315	3.533	3-318	2.	797	2.20	9	1.746	1. • 54		1.512	70.941
72.074	3.533	3.318	2.	796	2.21		1.747	1.54		1.513	73.743
74.935	3.533	3.318		796	2 • 21		1.749	1.59		1.513	
77.902	3.534	3.318		795	2 • 21		1 • 75 0	1.55		1.514	
80.977		3.318		794	2.21		1.752	1.59		1.514	
85.256		3.318		793	2.21		1.754	1.55		1.515	
88.603		3.318		792	2.21		1.755	1.59		1.515	
92.074		3.319		791	2.21		1.757	1.59		1.515	
95.674		3.319		791	2.21		1.758	1.59			101.497
99.406		3.319		790	2•:21 2•:21		1.759 1.761	1.59			105.427
103.276		3.319 3.319	_	790 789	2 • 21		1.762	1.5			109.502
107-290		3.320	_	789	2.21		1.763	1.59			113.728
111.452 115.768		3.320		788	2.21		1.764	1.5			118.111
120.244		3.320		788	2.21		1.765	1.5			122.656
124.885		3.320		788	2 • 21		1.766	1 • 5			127.369
131.343		3.321		787	2.21		1.767	1.59	5 5	1.516	133.926
136.395		3.321		787	2.20		1.767	1.5	56		139.057
141.635		3.321		787	2.20	9	1.768	1.5			144.377
147.070		3.321	2.	787	2.20	8	1.758	1.5			149.896
152.705		3.321		787	2 • 20		1.7-69	1.5			155.618
158.550		3.322		787	2.20		1.769	1.5		1.516	161.553
164.611		3.322		787	2.20		1.770	1.5			167.708
170.898		3.322		787	2.20		1.770	1.5			174.091
177 - 417		3.322		787	2.20		1.770	1.5			180.711 187.577
184.178		3.322		787	2.20		1 • 7:7:0	1.5			194.697
191-190		3.322		788	2.20		1.770	1.5			204.603
200.946	3.538	3.322	2.	788	2•-20	つ	1.771	1.5	90.	▼ ◆ コエン	2040000

MAI	CH NO =	10.00	CONE ANG	E = 10.00	) ANGL	E OF AT	TACK =	5.00
		P /	P FRFF-S	TREAM AT	PLANE	ANGLES	3	
L/RN	0.	30.	60.	90•	120.	150 •		S/RN
<b>4.</b>								
.826	13.613	13.045	1.1.595	9.836	8.308	7.319		1.396
1.008	13.064	12.516		9.429	7.970	7.031	6.713	1.581
1.179	12.506	11.973		9.010	7.639	6.768	6.473	1.755
1.444	11.666	11.160	9.887	8.389	7.130	6.340	5.074	2.023
1.834	10.593	10.116	8.933	7.574		5.783	5.557 5.155	
2.194	9.778	9.327		6.937		5.345 4.926	4.765	
2.596	9.094	8.641	7.548	6.361	5.447 4.911	4.443	4.299	
3.150	8.419	7.967		5•754 5•351	4.543	4.113	3.985	
3.630	8.033	7.568	6.474 6.155	5.025	4.230	3.827		
4.136	7.765	7.280 7.051	5.868	4.709	3.917	3.523		
4.798	7.571	6.953	5.712	4.518	3.718	3.325		
5.343 5.898	7.506 7.508	6.917	5.607	4.370	3.555	3.163		
5.458	7.563	6.930	5.543	4.255	3.423	3.028		7.115
7.154	7.693	7.003	5.510	4.154	3.291	2.890		7.832
7.730	7.834	7098		4.096	3.208	2.798		8.407
8.296	7.999	7217		4.055	3.140	2.721		8.982
9.002	8.229	7392		4.024	3.073	2.642	2.529	
9.564	8.425	7.546		4.011	3.03.0	2.591		
10.124	8.627	7-708		4.008	2.995		2.430	
10.818	8.885	7918	5.828	4.014	2.961			
11.370	9.094	8-090		4.026	2.940		-	
11.919	9.301	8. • 263		4.043	2.923			
12.465	9.506	8.437		4.064	2.910			
13.145	9.754	8 • :653			2.898	2.401		
13.688	9.941			4.125	2.891	2.385		
1,4.232	10.118			4.156	2.887	2.372		
14.916	19.319			4.198	2.885	2.359 2.350		
15.468	10.463				2.886 2.887	2.342	-	
16.025	10.589				2.892	2.335		
16.735	10.721				2.897	2.330		
17.315	10.804	-		4.407	2.903	2.327	-	
17.909	10.868						-	
18.674 19.307	10.922 10.945			4.510	2.922	2.324		
19.963	10.955			4.558	2.932	2.324		
20.544	10.952			4.607	2.943	2.326		
21.536	10.936			4.671	2.958	2.329		22.426
22.287	10.917			4.723	2.971	2.332	_	23.188
23.074	10.895			4.776	2.985	2.336	2.08	
24.116	10.864			4.843	3.005	2.343		
24.999	10.840			4.898	3.021	2.348		
25.931	10.815			4.953	3.039	2.355	_	
2".173	10.788		7.933	5.022	3.062	2.364		
26.237	10.769	9.949	7.942	5.078	3.082	2.371	2.259	29.229

	MACH NO =	10.00	CONE ANO	SLE = 10	•00 ANG	SLE OF A	TTACK =	5.00
		2.4	2 =2==				•	3000
L/R	N 0.	P /			AT PLANE	ANGLES	S	
2710	., 0•	30.	60.	90.	120.	150.	180.	SZRN
29.36	9 10.753	9.925	7 04 0					***************************************
30.57		9.905	7.942	5.135	3.104	2.379	2.272	30.379
32.19		9.885		5-191	3.127	2.388	2-286	
33.59		9.873	7.916	5.259	3.158	2.399	2.304	
35.08		9.864	7.899	5.312	3.184	2.408	2.319	
37.04		9.859	7.879	5.360	3.212	2.417	2-334	
38.68		9.858	7.856	5.413	3.248	2.428	2.352	
40.387		9.859	7.839	5.447	3.278	2.437	2.365	,
42.60		9.861	7.824	5.474	3.308	2.446	2.377	41.567
44.454		9.863	7.807	5.499	3.346	2.458	2.391	43.819
46.374		9.865	7.795	5.513	3.375	2.468	2.401	45.697
48.365		9.866	7.784	5.522	3.405	2-478	2-410	47.646
50.961	•	9.868	7.775	5.527	3.433	2.488	2.417	49.669
53.126		9.870	7•766	5.530	3.468	2.502	2.425	52.305
55.374		9.871	7•759 7•754	5.529	3.494	2.513	2.431	54.503
58.303		9.872		5.527	3.520	2.524	2.435	56.785
60.747		9.873	7•748 7•743	5.522	3.549	2.539	2.440	59.759
63.283		9.874	7.743	5.517	3.570	2.551	2.442	62.241
66.591		9.874	7.735	5.511	3.589	2.562	2.445	64.817
69.351		9.875	7.732	5.502	3.610	2.577	2.447	68.175
72.216		9.876	7.730	5.495	3.625	2.588	2-449	70.978
75.952		9.877	7.727	5.487	3.638	2.599	2.450	73.887
79.071	10.767	9.878	7.725	5•477 5•477	3.652	2.612	2.452	77.681
82.309	10.769	9.880	7.723	5•:470 5•:463	3.661	2.622	2 • 453	
85.671	10.770	9.881	7.721	5•455	3.669	2.632	2.455	
90.056	10.772	9.883	7.720	5.•:447	3.676	2.641	2-456	87.550
93.716	10.773	9.884	7.719	5.440	3.683	2.652	2.458	
97.517	10.774	9.886	7.719	5.434	3.687	2.660	2.460	
102.476	10.775	9.888	7.718	5•427	3.691	2 • 66 8	2.462	99•579
106.614	10.776	9.889	7.719	5.421	3.694 3.696	2.677		104.614
110.913	10,776	9.890	7.719	5•:415	3.696 3.697	2.684		108.816
116.520	10.776	9.892	7.720	5.409	3.698	2.690	2 • 468	113.181
121.201	10.776	9.893	7.721	5-404	3.698	2.697	2.471	118.874
126.062	10.776	9.894	7.723	5.400	3.697	2.702		123.627
131.111	10.776	9.895	7.724	5.395	3.696	2.706		128.564
137-698	10.776	9.896	7-727	5.391	3.695	2.711	2.476	133.691
143.196	10.776	9.897	7.728	5.387	3.693	2.716	2-479 1	140.379
148.907	10.775	9.897	7-730	5.384	3.692	2.719	2-480 1	45.962
156.357	10.775	9.897	7732	5.381	3.689	2.722	2.482 1	51.761
162.576	10.775	9.898	7.0734	5.378	3.687	2.726	2.483 1	59, 326
169.036	10.774	9.898	7.736	5.376	3.685	2.728	2-485 1	.65 • 641
177-461	10.7-74	9.898	7.738	5.374	3.683	2.731 2.733	2.486 1	.72.200
184.495	10.7-73	9.898	7.740	5.373	3.681	2.735	2.487 1	.00 • 756:
191.801	10.773	9.898	7.741	5.371	3.679	2.737	2-488 1	07.399
201.330	10-773	9 . 898	7.743	5.370	3.676	2.739	2.489 1	31.7
					24370		2.490 2	U4.993

MA	CH NO =	15.00	CONE ANG	SLE = 10.	00 ANGI	LE OF AT	TACK =	5.00
		D /	P FREE-S	TOEAM A	T PLANE	ANGLES		
L/RN	0•	30.	60.	90.	120.	150.	180.	S/RN
LYKI	0 •	30 •	<b>6</b> 0•	50 €	1200	190•	1004	SPRIN
.826	29.701	28.444	25.236	21.357	17.993	15.821	15.088	1-396
1.057	27.963	26.768	23.729	20.089	16.967	14.957	14.290	1.630
1.295	26.123	24.986	22.114	1-8.715	15.846	14.037	13.429	1.872
1.649	23.639	22.581	19.939	16.879	14.351	12.783	12.261	2.232
2.067	21.284	20.287		15.058	12.840	11.510	11.076	2.856
2.547	19.204	18.237	15.911	13.383	11.438	10.328	9.984	3.143
3.081	17-596	16.641	14.374	11.989	10.223	9.243	8.941	3.686
3.662	16.441	15.458	13.169	10.844	9.188	8.319	8.062	4.276
4.276	15.677	14.643	12.281	9.949	8.341	7.537		
4.914	15.232	14.125	11.646	9.265	7.671	6.891	6.682	5.547
5.564	15.040	13.842	11.210	8.749	7.142	6.374	5.166	6.207
6.219	15.049	13.743	10.927		6.723	_	5.756	6.872
5.874	15.216	13.790	10.761	8.072	6.393		5.420	7.537
7.524	15.501	13.949	10.688	7.858	6.130	5.341	5.138	8.198
8.168	15.871	14.192	10.687	7.701	5.919	5.114	4.904	8.851
8.802	16.296	14.496	10.742	7.590	5.748	4.927	4.712	9.495
9.425	16.768	14.840	10.742	7.515	5 • 60·8	4.773	4.554	10.127
10.035	17.259	15.213	10.969	7.467	5.494	4.643	4.422	10.747
10.632		15.611	11.123	7.442	5.400		4.309	11.353
	17.790					4.532		11.393
11.216	18.352	16.035	11.295	7 • 434	5.322	4.437	4.212	
11.787	18.934	16.482	11.482	7.441	5.258	4.355	4-128	12.526
12.346	19.525	16.948	11.683	7.458	5.205	4.284	4.054	13.094
12.895	20.110	17.427	11.895	7.486	5.162	4.222	3.989	13.651
13.434	20.676	17.911	12.118	7.521	5.126	4.168	3 • 93 2	14.199
13.967	21.212	18.393	12.352	7.563	5.096	4.120	3 • 8 8.2	14.740
14.495	21.706	18.864	12.596	7.612	5.072	4.077	3 • 837	
15.019	22.151	19.317	12.850	7 • 666	5.052	4.040	3.796	15.808
15.543	22.540	19.745	13.113	7.725	5.037	4.007	3.760	16.340
16.069	22.870	20.141	13.383	7.790	5.024	3.977	3.727	
16.598	23.137	20.500	13.658	7 • 859	5.015	3.951	3.698	17.411
17.133	2-3.342	20.817	13.938	7.933	5.009	3.928	3.673	
17.678	23.486	21.087	14.221	8.012	5.005	3.908	3 • 65.2	18.508
18.233	23.574		14.504					
18.803	23.611	21.475	14.786	8.184	5.004	3.874	3.617	19:-650
19.390	23.605	21.592	15.064	8 • 278	5.006	3.860	3.602	20.246
19.997	23.563	21.658	15.334	8.377	5.011	3.847	3.590	20.863
20.628	23.492	21.678	15.593	8.483	5.017	3.836	3.580	21.503
21.284	23.399	21.655	15.835	8.594	5.026	3.827	3.57-2	22.169
21.965	23.291	21.598	16.055	8.712	5.035	3.819	3.565	22:•861
22.675	2-3.175	21.511	16.247	8.835	5.047	3.812	3.561	23.582
23.420	23.059	21.401	16.409	8 • 966	5.060	3.806	3.559	24.4338
24.203	22.951	21.276	16.536	9.104	5 • 075	3.801	3.559	25.134
25.031	22.857	21.142	16.625	9.250	5 <b>- 091</b>	3.+797	3.561	25.975
25.910	22.781	21.011	16.675	9.406	5.110	3.794	3.565	26- <b>.</b> 867
26.838	22.724	20.892	16.686	9.569	5 • 131	3.792	3.570	27.809

MA	CH NO =	15.00	CONE ANG	SLE = 10.0	0 ANGL	E OF ATT	ACK =	5.00
		D /	P FPEE-S	TREAM AT	PLANE	ANGLES		
L/RN	0 •	30 •	60.	90.	120.	150 •	180 •	S/RN
LYKN	0.	JU#	00•	<b>50 •</b>	120 •	190 •	100 4	37.84
27.810	22.685	20.794	16.664	9.738	5.154	3.790	3.578	28.797
28.834	22.661	20.719	16.611	9.911	5.181	3.788	3.588	29.836
29.919	22.649	20.667	16.536	10.086	5.211	3.787	3.599	30.938
31.073	22.646	20.636	16.445	10.260	5.247	3.785	7.613	32.110
32.309	22.649	20.624		10.428	5.288	3.785	3.629	33.365
33.637	22.656	20.625	16.240	10.583	5.337	3.785	3.646	34.714
35.073	22.667	20.636	16.143	10.722	5.394	3.784	3.665	36.171
36.629	22.680	20.653		10.838	5.462	3.785	3.685	37.751
38.324	22.695	20.674	15.988	10.927	5.541	3.787	3.706	39.472
40.152	22.708	20.698	15.936	10.980	5.631	3.790	3.726	41.328
42.100	22.719	20.722	15.901	11.023	5.73.3	3.795	3.745	43.307
44.183	22.725	20.743	15.878	11.034	5.844	3.804	3.763	45.422
46.368	22.732	20.759	15.865	11.029	5 • 96 0°	3.816	3.778	47.640
48.646	22.738	20.767	15.859	11.010	6.078	3.832	3.791	49.953
51.022	22.744	20.770	15.855	1:0·982	6.193	3.851	3.801	52.366
53.500	22.750	20.769	15.855	10.946	6.300	3.875	3.810	54.883
56.087	22.756	20.766	15.856	10.906	6.398	3.902	3.817	57.509
58.786	22.762	20.752	15.858	10.864	6.483	3.932	3.822	60.250
61.603	22.767	20.759	15.859	1-0.823	6.555	3.966	3.825	63.110
64.543	22.773	20.755	15.859	10.785	6.615	4.003	7.828	66.096
67.612	22.778	20.754	15.857	1:0 • 751	6.665	4.041	3.829	69.212
70.815	22.784	20.75	15.855	1:0 7.21	6.704	4.082	3.830	72.464
74.159	22.788	20.755	15.851	10.694	6.736	4.124	3.831	75.860
77.650	22.792	20.757	15.847	10.670	6.761	4.166	3.832	79.405
81.29.4	22.795	20•7-51	15.843	10.649	6.780	4.207	3.834	83.106
85 • 1.0 <u>0</u>	22.798	20.765	15.840	10.630	6.794	4.248	3.836	86.970
89.073	22.800	20•770	15.837	10.612	6.802	4.286	3.839	91.004
93.221	22.802	20.775		10.596	6.806	4.322	3.842	95.216
97.553	22.803	20.780		1-0.582	6.806	4.355	3.847	99.615
102.07-6	22.805	20.785		1:0.569	6.801	4.385	₹ • 852	
106.800	22.805	20.789		1:0557	6.794	4.412	3 - 857	109.005
111.733	22.806	20.793	15.835	10.546	6.784	4.435		114.013
116.884	22.806	20.796		10.535	6.774	4 • 456	3.868	119.244
122.263	22.806	20.798	15.842	10.524	6.754	4 • 475	-	124.706
127.880	22.806	20.800	15.846	10.515	6.754	4.491		130.410
133.746	22.806	20.802	15.851	10.506	6.745	4.506		136.366
139.871	22.806	20.803	15.857	10.497	6.736	4.519	-	142.586
146.268	22.805	20.803	15.862	1-0 • 490	6.727	4.531		149.082
152.948	22.804	20.803	15.867	10.484	6.718	4.541		155.865
159.923	22.804	20.803	15.873	10-479	6.709	4.551		162.948
167.207	22.803	20.803	15.877	10-475	6.700	4.558		170.344
174.814	22.803	20.803	15.882	10.472	6.691	4.565		178.068
182.756	22.802	20.802		10-470	6.68-3	4.571		186.133
191.050	22.802	20.802	15.889	10:469	6.674	4.576		194.554
201.487	22.801	20.801	15.892	10.469	6.665	4.580	3.942	205.153

MACH NO = 28.00 CONE ANGLE = 10.00 ANGLE OF ATTACK = ANGLES P / P FREE-STREAM AT PLANE L/RN 0. 30. 60. 90. 120. 150. 186. S/RN .826 52.226 50.003 44.336 37.483 31.551 27.723 26.431 1.396 1.055 49.072 46.964 41.607 35.195 29.700 26.182 24.991 1.628 23.448 1 . 291 45.765 43.764 38.710 32.733 27.692 24.514 1.868 40.439 1.719 38.606 34.046 28.792 24.480 21.821 20.937 2.303 2.145 35.267 34.567 30.333 25.578 21.812 19.579 18.860 2.735 3.333 2.734 32.116 30.447 26.454 22.177 18.934 17.102 16.538 3.281 29.521 23.927 27.852 19.862 16.899 14.791 3.889 15.286 3.988 27.403 21.652 17.659 25.660 14.878 13.467 13.069 4.607 4.606 26.322 24.471 20.304 16.274 13.553 11.855 12.215 5.234 23.739 5.239 25.731 19.346 12.501 15.214 11.197 10.846 5.877 6.005 25.530 23.328 18.585 14.272 9.896 11.519 10.236 6.655 23.287 25.693 5.644 18.198 13.694 10.885 9.596 9.263 7.303 7.402 23.512 17.956 26.130 13.181 10.288 8.975 8.638 8.373 8.024 26.754 23.868 17.896 12.870 9.894 8.558 8.211 8.705 9.447 8.755 27.568 24.430 17.953 12.602 9.515 8.153 7.796 18.079 9.259 24.972 7.515 9.349 28.322 12.446 7.876 10.050 29.315 25.688 18.299 7.235 10.043 12.321 9.009 7.598 10.755 10.604 30.221 26.339 18.524 12.256 8.838 7.402 7.036 11.324 18.778 11.150 31.192 27.042 12.220 8.695 7.231 6.862 11.879 11.785 27,951 32.421 19.114 12.205 8.553 7.056 6.681 12.524 12.300 33.472 26.755 19.419 12.213 8.455 6.930 6.550 13.347 12.901 34.729 29.759 19.813 12.242 8.357 6.798 6.412 13.657 13.391 35.746 30.514 20.164 12,280 8.288 6.311 6.702 14.155 13.957 36.900 31.640 12.340 8.218 28.613 6.601 6.204 14.739 14.439 37.785 32.480 21.009 12.400 8.168 6.526 6.124 15.219 14.907 38.588 33.293 21.423 12.468 8.126 6.952 6.459 15.694 8.082 15.465 39.428 34.217 21.943 12.561 6.388 5.975 16.260 34.931 12.646 15.928 40.018 22.394 8.051 6.335 5.917 16.731 16.485 40.588 35.709 22.952 12.758 8.020 6.277 5.857 17.297 16.953 40.949 36.281 23.430 12.859 7.998 6.234 5.812 17.772 17.521 41.250 36.869 12,988 24.015 7.977 6.187 5.764 18.349 41.399 37.269 7.963 18.002 24.510 13-104 6.151 5.728 18.837 41.468 37.640 25.106 18.593 7.950 5.689 13.253 6.111 19.437 19.098 41.446 37.855 25.601 13.385 7.942 6.080 5.659 19.950 41.358 37.987 19.618 26.089 13.526 7.937 6.050 5.630 20.478 7.935 20.265 41.181 38.041 26,657 13.706 6.018 5.599 21.134 20.820 40.985 38.006 27.105 13.866 7.935 5.993 5.576 21.699 21.510 40.709 37.876 27.602 14.071 7.938 5.965 5.550 22.399 22.108 40.463 37.704 27.974 14.253 7.942 5.943 5.532 23.006 37.433 22.857 40.170 28.360 14.489 7.950 5.919 5.513 23.767 7.958 5.499 23.513 39.946 37.166 28.623 14.791 5.900 24.433 39.752 24.200 36.880 28.327 14,929 7.967 5.883 5.488 25.131 25.071 39.564 36.537 28.985 15.227 7.981 5.863 5.477 26,215 25.826 39.452 36.280 29.044 15.490 7.993 5.848 5.471 26.781 26.766 5.467 39.362 36.022 29.029 15.823 8.010 5.832 27.736

MA	CH NO =	20.00	CONE ANGI	LE = 10.0	00 ANGL	E OF ATT	ACK =	5.00
4 4544			P FREE-S			ANGLES	400	0.40.11
L/RN	-0 •	30.	60•	90.	120.	150.	180.	S/RN
27.585	39.320	35.854	28.952	16.114	8.026	5.818	5.468	28.567
28.618	39.300	35.710	28.794	16.477	8.051	5.801	5.473	29.616
29.527	39.301	35.639	28.617	16.788	8.076	5.788	5.481	30.540
30.688	39.315	35.604	28.367	17.163	8.114	5.772	5.494	31.718
31.722	39.334	35.608	28.143	17.471	8.155	5.759	5.507	32.768
32.825	39.360	35.635	27.922	17.765	8.206	5.744	5.523	33.888
34.255	39.397	35.684	27.677	18.088	8.284	5.725	5.546	35.34ปี
35.547	39.434	35.734	27.501	18.321	8.366	5.710	5.567	36.652
37.204	39.476	35.802	27.339	18.542	8.488	5.692	5.591	38.335
38.653	39.505	35.863	27.246	18.672	8.609	5.677	5.611	39.807
40.487	39.523	35.932	27.175	18.766	8.779	5.662	5.633	41.669
42.198	39.531	35.982	27.143	18.798	8.943	5.655	5.651	43.315
43.827	39.533	36.019	27.128	18.795	9.127	5.652	5.668	45.061
46.045	39.535			18.752	9.370	5.653	5.686	47.312
48.043	39.537			18.685	9.589	5.662	5.700	49.341
50.654	39.542	36.033	27.149	18.575	9.860	5.682	5.714	51.993
53.013	39.548	36.017		18.466	10.084	5.706	5.722	54.388
55.980	39.557		27.195	18.336	10.329	5.746	5.727	57.401
58.566	39.566	35.986		18.235	10.508	5.787	5.730	60.227
61.814	39.578	35.973		18.130	10.689	5.848	5.731	63.325
64.645	39.590	35.964	27.223	18.056	10.812	5.906	5.731	66.200
67.596	₹9.600	35.959	27.221	17.992	10.913	5.971	5.730	69.196
71.301	39.610	35.961	27.214	17.927	11.007	6.057	5.728	72.958
74.533	39.616	35.966	27.207	17.880	11.067	6.133	5.727	76.240
78.591	39.622			17.832	11.118	6.228	5.726	80.360
82.130	39.527			17.799	11.146	6.308	5.727	83.954
86.576	39.631	35.998		17.766	11.162	6.404	5.728	88.469
90.454	39.634			17.744	11.159	6.480	5.730	92.406
94.496	39.636			17.726	11.144	6.553	5.733	96.511
99.575	39.638			17.707	11.112	6.635		101.668
104.005	39.640			17.692	11.080	6.697		106.167
109.571	39.641			17.674	11.039	6.766		111.819
114.427	39.642			17.658	11.008	6.817		116.749
120.526								122.943
125.848	39.643			17.623	10.951	6.913		128.347
132.533	39.643			17.606	10.925	6.956		135.135
138.365	39.643			17.592	10.904	6.988		141.057
144.445	39,642			17.580	10.884	7.015		147.231
152.084	39.642			17.568	10.861 10.843	7.043 7.062		154.987 161.753
158.747	39.641			17.559 17.551	10.821	7.080		170.252
167.117	39.640			17.546	10.804	7.092		177.667
174,419 183.591	39.639 39.638			17.542	10.785	7.103		186.981
191.593	39.637			17.541	10.770	7.109		195.106
201.644	39.637			17.542	10.753	7.114		205.312
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	MACH	NO =	25.00	CONE	ANGL	E =	10	.00		ANG	SLE	0F	ATT	AC	< =	5.00	
	DAI	•		P FRE						LANE	E #	INGL				_	
L	KN	0.	30.	Ę	<b>.</b> 0 •		90.	•	1	20.		150	•	1	180.	S	/RN
• 8	26 8 <sup>-</sup>	1.183	77.721	68.8	192	58.	216		8.	975	43	•03	2	44.	007	4.2	396
1.0		6.210	72.930	64.5		54.				072		-59			751		527
1.3		9.639	66.573	58.8		49.				103		. 29			683		931
1.7		1.721	58.510	51.5		43.				04.8	-	.06			738		380
2.2		4.984	52.295	45.8		38.				927		60			545		323
2.8		8 • 695	46.127	39.9		33.				555		79	-		939		, " 0
3.4		4.222	41.620	35.5		29.				913		. 55			838		108
4.0		1.727	39.014	32.8		26.				430		. 29			703	4.7	
4 . 8		925	36.998	30.4		24.				96		. 07			535		64
5.5		9.128	35.914	28.9		22.				320		- 35			831	6.2	
6.2	20 39	9.058	35.554	28.0		21.				169		. 22			712	6.8	
6.9	73 39	9.515	35.619			20.				090		• 12			617	7.6	
7.7		0.390	36.089			19.				255		. 24			731	8 • 3	
8 • 4	38 43	1.522	36.830	27.1		19.				599		• 55			023	9.1	
9.0	27 48	2.592	37.579	27.2	94	18.	912			L5.6		- 08			544		723
9.7	13 4	4.015	38.587	27.5	51	18.	657	<b>1</b>	3.7	721		. 61			069		
10.3		5.605		27.8	199	18.	490	1	3.3	371	11	. 21	9	10.	672	11.0	93
10.9		7.057		28.2	240	18.	402	1	3.4	129	10	. 93	8	10.	386	11.6	536
11.5		8.924	42.068	28.7	0.0	18.	345	1	2:•.1	888	10	.64	8	10.	088	12.2	266
12.1			43.518	29.2		18.	328			59 <b>0</b>		.40			831	12.8	374
12.6			44.792			18.			2.	550			2		644	13.3	67
13.1			46.371			18.				+08			4		446		941
13.7			47.970	30.9		18.				288			0		273		
14.2		8.038	49.554	31.5		18.				185					120		
14.7		9.341	50.840	32.2		18.				111			9		006		
15.24		0.724	52.315	32.9		18.			-	1.33		•50			884		
15.7		1.893	53.690	33.7		18.				966		• 40			775	16.5	
15.19		2 • 697	54.744	34.4		18.				91.8		• 32			695	17.0	
16.73		3 • 455	55.881	35.3		19.				368		- 24			608	17.5	
17.69		993	56.863	36.2		19.				325		•16			531	18.0	
18.2		1.285	57.552	36.9		19.				9.4		• 10			471	18.5	
18.79		4.463 4.471	58.219 58.705	37.8		19.			_	764		• 03			406	19.0	
		4.361		38+8		19.				73.9		•97			344	19.6	
19.85		+• 102	58.972 59.132			20.				2.3			1		295		
20.48		3.732	59.125	40.4		20.				708		-86			239	20.7	
21.09		3.280	58.960	42.1		20. 20.				98		· 81			187	21.3	
21.63		2.868	58.713	42.7		21.						•76			139	21.9	
22.3		2.370	58.300	43.4		21.				89		•72 •67			102 062	22.5	
23.0:		1.904	57.786	44.0		21.				590-		•63			026	23.9	
23.63		.561	57.308	44.4		22.			16			• 60			999	24.5	
24.46		1.221	56.719	44.7		22.			1.6			• 56			978	25.3	
25.21		3.974	56.175	44.9		22.				.02 .03		•53			948		
25.91		832	55.780	45.0		23.		_	1.7			•50			933		
26.77		729	55.391	44.9		23.				14		.47			922	27.7	

## NSHC/HOL/TR 75-45

MA	CH NO =	25.00	CONE ANG	LE = 10.	00 ANG	LE OF ATT	ACK =	5.00
		P /	P FREE-S	TREAM A	T PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150.	180.	SIRN
				,,,,	2200	2700	1000	SPRIT
27.677	60.687	55.103	44.737	24.366	11.725	8.441	7.918	28.661
28.627	60.686	54.918	44.432	24.925	11.742	8.410	7.920	29.626
29.462	60.706	54.837	44.111	25.405	11.762	8.385	7.926	30.474
30.523	60.744	54.815	43.674	25.990	11.795	8.352	7.937	31.551
31.659 32.673	60.797 60.850	54.856 54.922	43.216	·26 • 569	11.843	8.318	7.954	32.705
33.982	60.924	55.024	42.846 42.441	27.035 27.555	11.899	8 286	7.971	33.734
35.398	61.002	55.141	42.103	28.007	11.988 12.109	8•247 8•205	7.995	35.063
36.630	61.063	55.248	41.895	28.311	12.236	8.170	8.020 8.041	36.501 37.752
38.167	61.113	55.376	41.722	28.578	12.419	8-128	8.063	39.313
39.782	61.139	55.496	41.621	28.744	12.643	8.092	8.086	40.953
41.487	61.146	55.598	41.572	28.818	12.909	8.052	8.108	42.685
42.991	61.143	55.658	41.560	28.819	13.162	8.042	8.125	44.212
44.913	61.139	55.697	41.571	28.753	13.505	8.025	8.141	46.163
46.987	61.138	55.700	41.601	20.620	13.882	8.019	8 • 155	48.269
48.852	61.140	55.681	41.638	28.466	14.219	8.023	8.165	50.163
51.284	61.145	55.644	41.691	28.242	14.637	8.039	8.174	52.632
53.964 56.401	61.149 61.155	55.602 55.567	41.746	27-998	15.055	8.072	.8.182	55.353
59.474	61.175	55.535	41.785 41.819	27•799 27•598	15.389	8.113	3.186	57.828
62.699	61 98	55.512	41.833	27.434	15.747 16.047	8-178 8-263	8-183	60.948
65.508	61.215	55.501	41.832	27.321	16.254	8:-347	8.179 8.175	64.223
69.033	61.232	55.501	41.824	27.209	16.450	8:• 46 3	8.170	67.076 70.655
72.733	61.245	55.512	41.810	27.114	16.598	8.593	8.165	74.413
76.618	61.254	55.530	41.791	27.035	16.701	8.732	8.161	78.357
80.003	61.261	55.548	41.774	26982	16.756	8.854	8 - 158	81.794
84.250	61.267	55.570	41.752	26.933	16.785	9.004	8.155	86.107
88.711	61.272	55.591	41.732	26.899	16.771	9.154	8.153	
92.598	61.275	55.603	41.719	26.878	16.730	9.277	8.152	
97.477	61.278	55.625	41.708	26.359	16.656	9.419	8 • 151	99.538
102.600 107.066	61.281	55.639	41.705	26.840	16.569	9.554		104.740
112.671	61.284 61.287	55.648 55.657	41.708 41.715	26.822	16.499	9.660		109.275
118.558	61.289	55.663	41.727	26.797 26.771	16.425	9.779		114.967
124.741	61.290	55.667	41.743	26.744	16.360 16.303	9.•888 9. <del>-</del> 986		120:944
130.129	61.290	55.669	41.758	26.721	16.261	10.058		127.222 132.693
136.892	61.290	55.670	41.777	26.696	16.214	10.132		139.561
L43•994	61.289	55.671	41.796	26.672	16.173	10-194		146.773
150.184	51.288	55.671	41.812	26.655	16.141	10.236		153.058
157.954	61.287	55.670	41.830	26.637	16.105	10.276		160.948
166.113	61.285	55.669	41.845	26.623	16.071	10.307		169.232
173.223	61.284	55.668	41.856	26.614	16.044	10.326		176.453
182.148	61.283	55.667	41.868	26.607	16.014	10.342		185.515
191.520	61.282	55.666	41.877	26.605	15.986	10.352		195.032
201.362	61.281	55 <sub>•</sub> :665	41.883	26.607	15.958	10.356	8.353	205.025

MA	ICH NO =	30.00	CONE	ANGLE	= 10	0.00	ANG	LE OF	ATTAC	K =	5.00
		2.4	5 -555		- 4 44	4 =	DI 4115	44101			
	-0		P FRE				PLANE			4.60	SZRN
L/RN	-0 •	30•	•	0-•	90	•	120.	150	3 •	180.	21KM
. 826	116.580	111.546	98.9	00 87	3 • 55	5 7	0.281	61.73	32 58	.832	1.396
	109.383		92.6		8 · 35		6.083	58.22		•572	1.627
1.352	99.898	95.494	84.4		1.34		0.358	53.49		.142	1.938
1.793	87.896	83.865	73.8		2.41		3.076	47.3		.456	2.377
2.321	76.970	73.233	64.0		3. 92		6.017	41.4		.982	2,914
2.931	68.414	64.748	56.0		5.79		9.901	36.04		.853	3.533
3.605	62.345	58.602	49.9		1.089		4.821	31.5		•551	4.217
4.201	58.997	55.078	46.1		7.40		1.389	28.38		•563	4.823
4.942	56.615	52.378	42.9		4 • 06!		8-168	25.3		.548	5.576
5.695	55.617	50.954	40.8		1 . 641		5.713	22.93		.196	6.340
6.448	55.670	50.492	39.5		9.87		3.842	21.07		.364	
7.192	56.501	50.750	38.8		8.59		2.407	19.6		.887	
7.921	57.847	51.524	38.5		7.67		1.287	18.43		.694	8.600
8.632	59.501	52.629			7.00		0.401	17.5		.745	9.322
9.208	61.047	53.709	38.7	26 20	6.60	8 1	9.801	16.86	53 16	. 099	9.907
9.878	63.112	55.151	39.1	02 2	6.26	5 <b>1</b>	9.209	16.2	17 15	.450	10.588
10.525	65.428	56.757	39.5	95 20	6.04	0 1	8.729	15.67	75 14	.902	11.244
11-147	67-982	58.543	40.1	7.4 2!	5 • 90	0 1	8.336	15.2	16 14	• 433	11.876
11-747	70.715	60.507	40.8	26 2!	5.82	7 1	8.013	14.82	25 14	.029	12.485
12.325	73-542	62.621	41.5	46 2	5.80	7 1	7.745	14.49	91 13	.68.0	13.073
12-885	76.373	64.844	42.3		5 • 83:		7.520	14.21	0.2 13	<b>•378</b>	13.641
13.339	78.673	66.744	43.0		5.87		7.359	13.99		<ul><li>15.6</li></ul>	14.102
13-871	81-296	69.038	43.9		5.96		7.191	13.7		• 91-8	14.642
14.392	83.714	71-302	44.9		5.07°		7.045	1.3.50		.709	15.171
14.905	85.879	73.490	45.9		5.21		6.920	13.3		• 523	15.692
15.411	87.758		47.0		6.37		6.810	13.23	-	.358	16.206
15.914	89.328	77-487			6 • 55:		6.715	13.09	-	.211	16.717
16.417	90.583	79.231			5.74		6.632	12.9		.080	17.227
16.837	91.388	80.530	5.0 • 4		6.92		6.572	12.8		•982	17.654
17345	92.080	81-885	51.7		7.15		6.509	12.7		• 87:3	18.170
17860	32-491	83.002	53.0		7.40		6.455	12.6		•77-3	18.693
18.385	92.646	83.872	54.3		7. 66		6.409	12.5		.678	
18.923	92.566	84.490			7.95		6.37-2	12.4		-588	19.772
19.477					8 • 26		6.342			.502	
20:-049	91.793	84.980	58.2	-	8, 59		6.318	12.2		•420	20.916
20=538	91282	84.903	59.2	-	8.88		6.303	12.2		• 355	21.412
21.141	90.577	84.604			9. 26		6.288	12.1		-282	22.024
21-766	89.828	84.099			9.67		6.278	12-0		.215	
22:-418	89.095	83.417			0.11		6.270	12.0		.154	
23.101	88.436	82.604	63•2 63•8		0.60		6.264	11.9		.098	24.014
23.819	87-864	81.724			1.14°		6.259	11.8	-	.048	24.744
24.571 25.212	87.421 87.157	80•859 80•209	64•2 64•4		1 • 73 2 • 26		6 • 255 6 • 250	11.8		•005 •97.6	25.507 26.158
26.005	86.944	79.537			2 • 20:		6.245	11.7		• 94.9	26.963
26.828	86.835	79.006			2 • 93 3 • 64		6.242	11.7		• 94.9	27.799
CO 0 0 CO.	20.022	12000	O 19.0 O	, ,	U + O+		0 0 C 7 C	7701	ot Tan	. JUC	610133

CONE ANGLE = 10.00

MACH NO = 30.00

ANGLE OF ATTACK =

PLANE P / P FREE-STREAM AT **ANGLES** L/RN 60. 90. 120. 150. 180. S/RN 30. 0. 10.923 78.619 64.045 34.398 16.244 11.660 28.672 27.687 86.802 63.561 35.191 16.251 11.613 10.922 29.589 86.822 78.381 28.591 30.558 16.267 10.927 78.278 62.960 36.013 11.564 29.545 86.874 86.934 78.279 62.403 36.712 16.291 11.521 10:937 31.412 30.386 78.358 37.549 16.338 11.465 10.954 32.501 31.459 87.022 61.715 11.404 10.975 33.671 87.127 78.494 61.050 38.362 16.409 32.611 11.338 11.001 34.935 33.855 87.245 78.663 60.452 39.123 16.513 59.960 39.791 16.660 11.270 11.028 36.289 87.364 78.852 35.189 11.052 37.694 87.468 79.052 59.609 40.325 16.847 11.200 36.572 11.075 59.375 40.713 17.083 11.132 39-153 38.010 87.531 79.245 87.559 79.398 59.260 40.930 17.321 11.080 11.095 40-419 39.257 87.567 11.026 79.554 59.190 41.071 17.657 11.118 42.009 40.822 18.056 10.979 11.137 43.689 42.477 87.559 79,665 59.177 41.094 45.478 44.238 87.547 79.726 59.205 41.008 18.501 10.941 11.152 87.539 79.732 59.260 40.822 19.005 10.916 11.164 47.395 46.127 87.539 79.698 59.339 40.547 19.555 10.905 11.174 49.467 48.167 20,136 10.908 11.180 50.387 87.541 79.638 59.429 40.207 51.721 20.634 10.927 11.185 53.763 87.543 79.583 59.506 39.898 52.397 59.589 39.529 21.229 10.968 11.189 56.442 87.551 79.515 55.036 59.407 11.036 11.189 39.193 21.801 57.956 87.568 79.449 59.649 79.403 59.684 38.922 22.310 11.131 11.180 62.568 61.068 87.600 11.251 11.178 65.883 64.333 87.634 79.381 59.691 38.709 22.736 11.161 67.758 87.659 79.379 59.679 38.535 23.077 11.397 69.361 71.352 87.678 79.396 59.659 38.392 23.336 11.563 11.151 73.010 59.635 38.291 23.494 11.716 11.144 76:187 74.481 87.689 79.418 79.451 11.913 11.136 80-172 87.700 59.601 38.193 23.619 78.406 84.354 82.524 87.709 79.485 59.565 38.122 23.673 12.120 11.127 79.518 59.532 38.076 23.654 12.333 11.119 88.743 86.846 87.716 91.382 79.549 59.505 38.047 23,568 12.548 11.109 93.348 87.720 23.437 12.762 11.099 98.183 96.142 87.725 79.574 59.487 38.029 79.594 23.288 12.971 11.088 103.257 101.140 87.730 59.479 38,010 105.493 87.735 79.607 59.480 37.991 23.171 13.140 11.079 107.677 59.490 37.962 23.045 13.335 11.070 113.223 110.954 87.740 79.619 11.063 119.043 116.686 87.744 79.627 59.506 37.928 22.936 13.517 59.528 37.892 22.840 13.683 11.062 125.152 122.702 87.746 79.633 59.554 22.755 13.829 11.067 131.565 79.636 37.854 129.017 87.747 11.079 138.295 135.645 87.748 79.638 59.582 37.816 22.681 13.953 11.097 145.359 37.780 22.615 14.055 142.602 87.747 79.638 59.611 37.753 22.566 14.124 11.118 151.512 148.662 87.745 79.638 59.634 37.724 22.512 14.191 11.147 159.232 156.264 87.743 79.638 59.660 87.741 79.637 59.687 37.700 22.464 14.241 11.182 167.334 164.243 87.739 79.635 59.703 37.683 22.419 14.276 11.219 175.837 172.617 22.376 14.299 11.259 184.762 87.737 79.634 59.719 37.672 181.407 11.299 194.129 87.735 79.632 59.732 37.669 22.333 14.311 190.631 11.339 203.960 87.735 79.630 59.741 37.672 22.289 14.314 200.313

L/RN	MAC	CH NO =	3.50	CONE	ANGI	LE =	15.	0 0	ANG	SLE	0F	AT	TACK	=	5.00
1.78N   0.   30.   60.   90.   120.   150.   180.   S/RN			P /	P FR	EE-S	TREA	M A	T	PLANE	: <i>I</i>	NGL	.ES			
.858	L/RN	0.		•					120.		150	•	1	.90.	S/RN
.858						_								771.	4 700
.949 3.006 2.902 2.632 2.300 2.004 1.810 1.743 1.524 1.099 3.006 2.900 2.627 2.294 2.003 1.813 1.747 1.680 1.322 2.983 2.875 2.602 2.270 1.983 1.798 1.734 1.9910 1.505 2.955 2.847 2.574 2.246 1.963 1.782 1.720 2.100 1.702 2.927 2.8.8 2.544 2.218 1.940 1.764 1.705 2.304 1.988 2.893 2.783 2.508 2.183 1.909 1.739 1.682 2.600 2.219 2.857 2.749 2.447 2.151 1.881 1.718 1.665 2.839 2.464 2.843 2.727 2.437 2.111 1.883 1.681 1.625 2.839 2.464 2.844 2.729 2.447 2.151 1.881 1.718 1.665 2.839 3.375 2.858 2.727 2.435 2.101 1.833 1.669 1.615 3.738 3.375 2.858 2.737 2.435 2.101 1.833 1.669 1.615 3.738 4.092 2.898 2.771 2.455 2.096 1.820 1.666 1.664 1.610 4.036 3.675 2.873 2.749 2.441 2.095 1.820 1.660 1.660 4.778 4.417 2.920 2.790 2.467 2.107 1.820 1.665 1.660 4.778 4.417 2.920 2.790 2.467 2.107 1.820 1.665 1.604 5.114 4.752 2.943 2.811 2.481 2.114 1.825 1.656 1.605 5.461 5.098 2.967 2.832 2.497 2.123 1.830 1.666 1.607 5.819 5.576 2.999 2.861 2.518 2.137 1.830 1.666 1.607 5.819 5.576 2.999 2.861 2.518 2.137 1.830 1.666 1.607 5.819 5.576 2.999 2.861 2.518 2.137 1.830 1.668 1.607 5.819 5.576 2.999 2.861 2.518 2.137 1.830 1.668 1.607 5.819 5.576 2.999 2.861 2.518 2.137 1.830 1.668 1.607 5.819 5.576 2.999 2.861 2.518 2.137 1.830 1.668 1.607 5.819 5.576 2.999 2.861 2.518 2.137 1.830 1.668 1.607 5.819 5.576 2.999 2.861 2.518 2.137 1.830 1.668 1.607 5.819 5.576 2.999 2.861 2.518 2.137 1.830 1.668 1.664 3.14 6.314 6															
1.099 3.006 2.900 2.627 2.294 2.003 1.813 1.747 1.680 1.322 2.983 2.875 2.602 2.770 1.983 1.798 1.734 1.910 1.702 2.927 2.848 2.574 2.246 1.963 1.782 1.720 2.100 1.702 2.927 2.848 2.564 2.218 1.940 1.764 1.705 2.304 1.988 2.893 2.783 2.508 2.183 1.909 1.739 1.682 2.600 2.219 2.857 2.749 2.474 2.151 1.881 1.718 1.665 2.839 2.474 2.151 1.881 1.718 1.665 2.839 2.464 2.843 2.727 2.449 2.111 1.843 1.681 1.629 3.360 3.087 2.845 2.729 2.447 2.124 1.857 1.697 1.646 3.092 2.723 2.843 2.727 2.439 2.111 1.833 1.669 1.615 3.738 3.087 2.858 2.737 2.435 2.096 1.826 1.664 1.615 3.738 4.092 2.898 2.771 2.455 2.096 1.826 1.666 1.608 4.346 4.092 2.898 2.771 2.455 2.100 1.818 1.655 1.606 4.778 4.417 2.920 2.790 2.467 2.107 1.820 1.655 1.606 4.778 4.417 2.920 2.802 2.802 2.535 2.100 1.818 1.655 1.606 5.461 5.998 2.967 2.832 2.497 2.123 1.830 1.666 1.607 5.819 5.576 2.999 2.861 2.518 2.137 1.839 1.668 1.616 5.604 5.114 5.995 1.668 2.993 2.861 2.518 2.137 1.839 1.668 1.616 5.819 6.862 3.072 2.929 2.573 2.175 1.855 1.691 1.638 7.096 6.362 3.072 2.929 2.553 2.175 1.856 1.691 1.638 7.096 6.362 3.072 2.929 2.553 2.175 1.855 1.691 1.638 7.695 7.095 7.005															
1.322 2.983 2.875 2.602 2.270 1.983 1.798 1.734 1.910 1.505 2.955 2.847 2.574 2.246 1.963 1.772 1.720 2.100 1.702 2.927 2.818 2.544 2.218 1.940 1.764 1.705 2.304 1.988 2.893 2.783 2.508 2.183 1.999 1.739 1.682 2.600 2.219 2.857 2.749 2.474 2.151 1.881 1.718 1.665 2.839 2.464 2.843 2.729 2.447 2.124 1.857 1.697 1.646 3.092 2.462 2.843 2.727 2.435 2.101 1.833 1.661 1.629 3.360 3.087 2.846 2.729 2.435 2.101 1.833 1.666 1.661 4.036 3.367 2.836 2.771 2.435 2.096 1.826 1.666 1.661 4.036 4.092 2.898 2.771 2.455 2.100 1.818 1.655 1.660 4.346 4.092 2.898 2.771 2.455 2.100 1.818 1.655 1.604 5.114 4.752 2.943 2.811 2.481 2.114 1.825 1.656 1.605 5.461 5.098 2.967 2.832 2.497 2.123 1.830 1.660 1.607 5.819 5.576 2.999 2.861 2.518 2.137 1.839 1.668 1.610 5.346 5.947 3.022 2.882 2.535 2.148 1.846 1.674 1.621 6.699 6.862 3.072 2.929 2.573 2.175 1.865 1.601 1.638 7.645 7.276 3.092 2.948 2.588 2.589 2.186 1.874 1.699 1.664 8.518 8.303 3.130 2.886 2.623 2.125 1.893 1.717 1.664 9.137 8.771 3.143 3.000 2.636 2.223 1.902 1.725 1.660 1.128 9.260 3.155 3.013 2.649 2.233 1.910 1.733 1.680 10.128 9.260 3.155 3.013 2.649 2.233 1.910 1.775 1.704 11.980 11.641 3.193 3.053 2.693 2.271 2.289 1.757 1.704 11.980 11.643 3.193 3.053 2.693 2.271 2.289 1.775 1.704 11.980 11.548 3.205 3.067 2.710 2.289 1.958 1.777 1.746 1.672 9.623 11.548 3.205 3.067 2.710 2.289 1.958 1.777 1.746 1.757 1.704 11.980 11.549 3.223 3.080 2.722 2.309 1.958 1.777 1.746 1.662 1.759 1.759 1.759 1.759 1.759 1.750 1.759 1.750 1.759 1.															
1.505															
1.702 2.927 2.818 2.594 2.218 1.940 1.764 1.705 2.304 1.988 2.893 2.783 2.508 2.183 1.909 1.7739 1.682 2.600 2.219 2.857 2.749 2.447 2.121 1.881 1.718 1.665 2.839 2.7464 2.843 2.729 2.447 2.124 1.857 1.697 1.646 3.092 2.723 2.843 2.727 2.439 2.111 1.883 1.669 1.615 3.738 3.087 2.846 2.729 2.435 2.101 1.833 1.669 1.615 3.738 3.375 2.858 2.737 2.435 2.096 1.826 1.664 1.610 4.036 3.675 2.873 2.749 2.441 2.095 1.820 1.660 1.608 4.346 4.092 2.898 2.771 2.455 2.100 1.818 1.655 1.606 4.778 4.417 2.920 2.790 2.467 2.107 1.820 1.655 1.606 5.114 4.752 2.943 2.811 2.481 2.114 1.825 1.656 1.605 5.461 5.098 2.967 2.832 2.947 2.123 1.830 1.660 1.607 5.819 5.576 2.999 2.881 2.518 2.137 1.839 1.668 1.614 6.314 5.947 3.022 2.882 2.535 2.148 1.846 1.674 1.621 6.699 6.331 3.045 2.902 2.594 2.518 1.884 1.664 1.661 1.621 6.699 6.362 3.072 2.929 2.573 2.175 1.865 1.691 1.623 6.693 6.862 3.072 2.948 2.589 2.186 1.874 1.699 1.664 8.074 7.705 3.092 2.948 2.589 2.186 1.874 1.699 1.664 8.074 7.705 3.109 2.965 2.604 2.198 1.882 1.707 1.654 8.518 8.333 3.130 2.986 2.623 2.212 1.893 1.717 1.664 9.137 9.260 3.155 3.013 2.649 2.233 1.910 1.733 1.680 10.128 9.769 3.166 3.024 2.660 2.243 1.910 1.733 1.680 10.128 9.769 3.166 3.024 2.660 2.223 1.902 1.725 1.672 9.623 9.769 3.166 3.024 2.660 2.223 1.902 1.725 1.672 9.623 9.769 3.166 3.024 2.660 2.223 1.902 1.775 1.672 9.623 9.769 3.166 3.024 2.660 2.223 1.902 1.775 1.677 9.623 9.769 3.166 3.024 2.660 2.223 1.902 1.775 1.672 9.623 9.769 3.166 3.024 2.660 2.223 1.902 1.775 1.704 11.980 11.641 3.193 3.003 2.649 2.233 1.910 1.733 1.680 10.128 9.759 3.215 3.080 2.779 2.389 1.958 1.779 1.727 1.746 1.654 13.145 3.205 3.067 2.710 2.289 1.958 1.777 1.764 11.980 11.641 3.193 3.080 2.774 2.338 2.902 1.775 1.704 11.980 11.643 3.223 3.080 2.774 2.331 1.996 1.811 1.760 1.9478 11.949 3.223 3.080 2.774 2.331 1.996 1.775 1.775 1.746 11.961 13.145 3.223 3.080 2.774 2.331 1.996 1.811 1.760 1.9478 14.594 3.224 3.098 2.744 2.338 2.002 1.823 1.775 2.4352 2.1067 3.223 3.089 2.745 2.331 1.996 1.811 1.760 1.9478 2.3462 3.															
1.988 2.893 2.783 2.508 2.183 1.909 1.739 1.682 2.600 2.219 2.857 2.749 2.474 2.151 1.881 1.718 1.665 2.839 2.464 2.843 2.727 2.439 2.111 1.884 1.661 1.629 3.360 3.087 2.846 2.729 2.435 2.101 1.833 1.669 1.615 3.738 3.375 2.858 2.737 2.435 2.101 1.833 1.669 1.615 3.738 3.375 2.858 2.737 2.435 2.096 1.820 1.660 1.608 4.346 4.092 2.898 2.771 2.455 2.100 1.818 1.655 1.604 5.114 4.752 2.943 2.811 2.481 2.107 1.820 1.660 1.608 4.346 4.092 2.898 2.771 2.455 2.100 1.818 1.655 1.606 4.778 4.417 2.920 2.790 2.467 2.107 1.820 1.655 1.606 5.461 5.108 5.114 5.576 2.943 2.811 2.481 2.114 1.825 1.656 1.605 5.461 5.576 2.992 2.861 2.518 2.137 1.839 1.668 1.615 6.314															
2.219															
2.467 2.468 2.468 2.727 2.468 2.727 2.439 2.111 1.843 1.661 1.629 3.360 3.375 2.888 2.737 2.435 2.096 1.826 1.664 1.610 4.036 3.375 2.873 2.749 2.441 2.095 1.820 1.660 1.600 4.036 4.092 2.898 2.771 2.455 2.100 1.818 1.655 1.604 4.778 4.417 2.920 2.790 2.467 2.107 1.820 1.655 1.604 5.114 4.752 2.943 2.811 2.481 2.114 1.825 1.655 1.604 5.114 5.098 2.967 2.881 2.481 2.137 1.830 1.660 1.607 5.819 5.576 2.999 2.861 2.518 2.137 1.830 1.666 1.607 5.819 6.331 3.045 2.929 2.551 2.148 1.846 1.674 1.621 6.369 6.331 3.045 2.929 2.573 2.175 1.865 1.604 1.614 6.314 5.947 3.022 2.882 2.535 2.148 1.846 1.674 1.621 6.699 6.331 3.045 2.929 2.573 2.175 1.865 1.601 1.638 7.645 7.276 3.092 2.948 2.589 2.186 1.874 1.699 1.668 1.668 8.074 7.705 3.109 2.965 2.604 2.198 1.882 1.707 1.664 8.074 7.705 3.109 2.966 2.623 2.212 1.893 1.717 1.664 9.137 8.771 3.143 3.000 2.636 2.223 1.910 1.725 1.667 1.668 10.128 9.769 3.166 3.024 2.660 2.243 1.910 1.770 1.704 11.980 10.128 1.771 1.704 11.980 10.128 1.771 1.704 11.980 10.138 1.681 1.771 1.704 11.980 10.148 3.168 3.037 2.687 2.223 1.910 1.773 1.704 11.980 10.128 1.775 1.704 11.980 11.949 1.740 1.688 10.655 1.733 1.668 10.128 1.757 1.704 11.980 11.949 1.555 3.215 3.080 2.771 2.2893 2.271 2.295 1.992 1.773 1.774 1.786 1.697 1.774 1.980 1.775 1.704 11.980 1.775 1.704 11.980 1.777 1.776 1.7705 1.7705 1.7704 11.980 1.777 1.7765 1.7704 11.980 1.777 1.7705 1.7706 1.770															
2.723															
3.087														629	3.360
3.375													1.	615	3.738
3.675														610	4.036
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4.752       2.943       2.811       2.481       2.114       1.825       1.656       1.605       5.461         5.098       2.967       2.832       2.497       2.123       1.830       1.660       1.607       5.819         5.947       3.022       2.882       2.535       2.148       1.846       1.674       1.621       6.699         6.331       3.045       2.903       2.551       2.159       1.854       1.661       1.628       7.096         6.862       3.072       2.929       2.573       2.175       1.865       1.661       1.638       7.645         7.276       3.092       2.948       2.589       2.589       1.882       1.707       1.654       8.518         8.303       3.130       2.986       2.623       2.212       1.893       1.717       1.664       9.137         8.771       3.143       3.000       2.636       2.223       1.902       1.725       1.672       9.623         9.260       3.155       3.013       2.649       2.233       1.910       1.733       1.668       10.128         9.769       3.166       3.024       2.660       2.243       1.919       1.740							107		1.820		1.69	55			
5.098       2.967       2.832       2.497       2.123       1.830       1.660       1.607       5.819         5.576       2.999       2.861       2.518       2.137       1.839       1.668       1.614       6.814         5.947       3.022       2.882       2.535       2.148       1.864       1.674       1.621       6.699         6.331       3.045       2.903       2.551       2.175       1.865       1.681       1.628       7.096         6.862       3.072       2.929       2.573       2.175       1.865       1.691       1.638       7.645         7.276       3.092       2.948       2.589       2.186       1.874       1.699       1.645       8.074         7.705       3.109       2.965       2.604       2.198       1.882       1.707       1.654       8.518         8.303       3.130       2.986       2.623       2.212       1.893       1.717       1.664       9.137         8.771       3.143       3.000       2.636       2.223       1.901       1.733       1.6680       10.128         9.769       3.166       3.024       2.660       2.243       1.910       1.733				2,	481	2	.114		1.825						
5.576       2.999       2.861       2.518       2.137       1.839       1.668       1.614       6.514         5.947       3.022       2.882       2.535       2.148       1.846       1.674       1.621       6.699         6.862       3.072       2.929       2.573       2.175       1.865       1.661       1.628       7.096         7.276       3.092       2.948       2.589       2.186       1.874       1.699       1.646       8.074         7.705       3.109       2.965       2.604       2.198       1.882       1.707       1.654       8.518         8.303       3.130       2.986       2.623       2.212       1.893       1.717       1.664       9.137         8.771       3.143       3.000       2.636       2.223       1.910       1.725       1.672       9.623         9.260       3.155       3.013       2.649       2.223       1.910       1.733       1.680       10.128         9.769       3.166       3.024       2.660       2.243       1.919       1.740       1.688       10.655         10.483       3.186       3.045       2.684       2.263       1.936       1.757						2	123								-
5.947       3.022       2.882       2.535       2.148       1.846       1.674       1.621       6.899         6.331       3.045       2.903       2.551       2.159       1.854       1.681       1.628       7.096         7.276       3.092       2.948       2.589       2.186       1.874       1.699       1.646       8.074         7.705       3.109       2.965       2.604       2.198       1.882       1.707       1.654       8.518         8.303       3.130       2.986       2.623       2.212       1.893       1.717       1.664       9.137         8.771       3.143       3.000       2.636       2.223       1.902       1.725       1.672       9.623         9.260       3.155       3.013       2.649       2.233       1.910       1.733       1.680       10.128         9.769       3.166       3.024       2.660       2.243       1.919       1.740       1.688       10.655         10.483       3.186       3.024       2.664       2.255       1.929       1.750       1.669       11.395         11.049       3.186       3.045       2.684       2.263       1.976       1.770			2.861	?,	518	2	137								
6.331 3.045 2.903 2.551 2.159 1.854 1.681 1.628 7.096 6.862 3.072 2.929 2.573 2.175 1.865 1.691 1.638 7.645 7.276 3.092 2.948 2.589 2.186 1.874 1.699 1.646 8.074 7.705 3.109 2.965 2.604 2.198 1.882 1.707 1.654 8.518 8.303 3.130 2.986 2.623 2.212 1.893 1.717 1.664 9.137 8.771 3.143 3.000 2.636 2.223 1.902 1.725 1.672 9.623 9.260 3.155 3.013 2.649 2.233 1.910 1.733 1.680 10.128 9.769 3.166 3.024 2.660 2.243 1.910 1.733 1.680 10.128 10.483 3.178 3.037 2.675 2.255 1.929 1.750 1.6697 11.395 11.049 3.186 3.045 2.684 2.255 1.929 1.750 1.6697 11.395 11.049 3.186 3.045 2.684 2.263 1.936 1.757 1.704 11.980 11.641 3.193 3.053 2.693 2.271 1.943 1.764 1.711 12.594 12.478 3.200 3.061 2.703 2.282 1.952 1.773 1.720 13.460 13.145 3.205 3.067 2.710 2.289 1.958 1.779 1.727 14.150 13.839 3.209 3.072 2.717 2.295 1.969 1.785 1.733 14.869 14.558 3.212 3.076 2.722 2.301 1.969 1.790 1.739 15.613 15.559 3.212 3.080 2.733 2.314 1.980 1.801 1.750 17.461 16.650 16.343 3.217 3.082 2.733 2.314 1.980 1.801 1.750 17.461 17.157 3.219 3.084 2.737 2.318 1.984 1.806 1.755 18.304 18.291 3.221 3.086 2.741 2.324 1.989 1.811 1.760 19.478 19.181 3.222 3.089 2.745 2.335 1.999 1.814 1.764 20.399 20.106 3.222 3.089 2.745 2.335 1.999 1.814 1.767 21.357 21.067 3.223 3.089 2.745 2.335 1.999 1.814 1.767 21.357 22.409 3.224 3.090 2.749 2.338 2.002 1.823 1.773 23.741 23.462 3.224 3.091 2.750 2.341 2.005 1.825 1.775 24.832			2.882	2	535										
7.276		3.045	2.903	2	551										
7.705		3.072	2.929												-
8.303 3.130 2.986 2.623 2.212 1.893 1.717 1.664 9.137 8.771 3.143 3.000 2.636 2.223 1.902 1.725 1.672 9.623 9.260 3.155 3.013 2.649 2.233 1.910 1.733 1.680 10.128 9.769 3.166 3.024 2.660 2.243 1.919 1.740 1.688 10.655 10.483 3.178 3.037 2.675 2.255 1.929 1.750 1.697 11.395 11.049 3.186 3.045 2.684 2.263 1.936 1.757 1.704 11.980 11.641 3.193 3.053 2.693 2.271 1.943 1.764 1.711 12.594 12.478 3.200 3.061 2.703 2.282 1.952 1.773 1.720 13.460 13.145 3.205 3.067 2.710 2.289 1.958 1.779 1.727 14.150 13.839 3.209 3.072 2.717 2.295 1.964 1.785 1.733 14.869 14.558 3.212 3.076 2.722 2.301 1.969 1.790 1.739 15.613 15.559 3.215 3.080 2.729 2.309 1.976 1.797 1.777 1.746 16.650 16.343 3.217 3.082 2.733 2.314 1.980 1.801 1.750 17.461 17.157 3.219 3.084 2.733 2.314 1.980 1.801 1.755 18.304 19.181 3.222 3.088 2.743 2.328 1.989 1.811 1.760 19.478 19.181 3.222 3.088 2.743 2.328 1.993 1.814 1.764 20.399 20.106 3.222 3.089 2.747 2.335 1.999 1.814 1.767 21.357 22.409 3.224 3.090 2.749 2.338 2.002 1.823 1.773 23.741 23.462 3.224 3.090 2.749 2.338 2.002 1.823 1.773 23.741 23.462 3.224 3.090 2.749 2.338 2.002 1.823 1.773 23.741 23.462 3.224 3.090 2.749 2.338 2.002 1.823 1.773 23.741 23.462 3.224 3.091 2.750 2.341 2.005 1.825 1.775 24.832 23.462 3.224 3.091 2.750 2.341 2.005 1.825 1.775 24.832	7.276	3.092	2.948												-
8.771       3.143       3.000       2.636       2.223       1.902       1.725       1.672       9.623         9.260       3.155       3.013       2.649       2.233       1.910       1.733       1.680       10.128         9.769       3.166       3.024       2.660       2.243       1.919       1.740       1.688       10.655         10.483       3.178       3.037       2.675       2.255       1.929       1.750       1.697       11.395         11.049       3.186       3.045       2.684       2.263       1.936       1.757       1.704       11.980         11.641       3.193       3.053       2.693       2.271       1.943       1.764       1.711       12.594         12.478       3.200       3.061       2.703       2.282       1.952       1.773       1.720       13.460         13.145       3.205       3.067       2.710       2.289       1.958       1.779       1.727       14.150         13.839       3.209       3.072       2.717       2.295       1.964       1.785       1.733       14.869         14.558       3.212       3.080       2.722       2.301       1.969       1.	7.705	3.109													
9.260       3.155       3.013       2.649       2.233       1.910       1.733       1.680       10.128         9.769       3.166       3.024       2.660       2.243       1.919       1.740       1.688       10.655         10.483       3.178       3.037       2.675       2.255       1.929       1.750       1.697       11.395         11.049       3.186       3.045       2.684       2.263       1.936       1.757       1.704       11.980         11.641       3.193       3.053       2.693       2.271       1.943       1.764       1.711       12.594         12.478       3.200       3.061       2.703       2.282       1.952       1.773       1.720       13.460         13.145       3.205       3.067       2.710       2.289       1.958       1.779       1.727       14.150         13.839       3.209       3.072       2.717       2.295       1.964       1.785       1.733       14.869         14.558       3.212       3.080       2.722       2.301       1.969       1.790       1.773       15.613         15.559       3.215       3.080       2.729       2.309       1.976	8.303														
9.769       3.166       3.024       2.660       2.243       1.919       1.740       1.688       10.655         10.483       3.178       3.037       2.675       2.255       1.929       1.750       1.697       11.395         11.049       3.186       3.045       2.684       2.263       1.936       1.757       1.704       11.980         11.641       3.193       3.053       2.693       2.271       1.943       1.764       1.711       12.594         12.478       3.200       3.061       2.703       2.282       1.952       1.773       1.720       13.460         13.145       3.205       3.067       2.710       2.289       1.958       1.779       1.727       14.150         13.839       3.209       3.072       2.717       2.295       1.964       1.785       1.733       14.869         14.558       3.212       3.076       2.722       2.301       1.969       1.790       1.739       15.613         15.559       3.215       3.080       2.729       2.309       1.976       1.797       1.746       16.650         16.343       3.217       3.082       2.733       2.314       1.980 <td< td=""><td>8.771</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td></td<>	8.771														-
10.483       3.178       3.037       2.675       2.255       1.929       1.750       1.697       11.395         11.049       3.186       3.045       2.684       2.263       1.936       1.757       1.704       11.980         11.641       3.193       3.053       2.693       2.271       1.943       1.764       1.711       12.594         12.478       3.200       3.061       2.703       2.282       1.952       1.773       1.720       13.460         13.145       3.205       3.067       2.710       2.289       1.958       1.779       1.727       14.150         13.839       3.209       3.072       2.717       2.295       1.964       1.785       1.733       14.869         14.558       3.212       3.076       2.722       2.301       1.969       1.790       1.739       15.613         15.559       3.215       3.080       2.729       2.309       1.976       1.797       1.746       16.650         16.343       3.217       3.082       2.733       2.314       1.980       1.801       1.750       17.461         17.157       3.219       3.084       2.737       2.318       1.980 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td></t<>															-
11.049															
11.641 3.193 3.053 2.693 2.271 1.943 1.764 1.711 12.594 12.478 3.200 3.061 2.703 2.282 1.952 1.773 1.720 13.460 13.145 3.205 3.067 2.710 2.289 1.958 1.779 1.727 14.150 13.839 3.209 3.072 2.717 2.295 1.964 1.785 1.733 14.869 14.558 3.212 3.076 2.722 2.301 1.969 1.790 1.739 15.613 15.559 3.215 3.080 2.729 2.309 1.976 1.797 1.746 16.650 16.343 3.217 3.082 2.733 2.314 1.980 1.801 1.750 17.461 17.157 3.219 3.084 2.737 2.318 1.984 1.806 1.755 18.304 18.291 3.221 3.086 2.741 2.324 1.989 1.811 1.760 19.478 19.181 3.222 3.088 2.743 2.328 1.993 1.814 1.764 20.399 20.106 3.222 3.089 2.745 2.331 1.996 1.817 1.767 21.357 21.067 3.223 3.089 2.747 2.335 1.999 1.820 1.770 22.352 22.409 3.224 3.090 2.749 2.338 2.002 1.823 1.773 23.741 23.462 3.224 3.091 2.750 2.341 2.005 1.825 1.775 24.832	-														
12.478															
13.145       3.205       3.067       2.710       2.289       1.958       1.779       1.727       14.150         13.839       3.209       3.072       2.717       2.295       1.964       1.785       1.733       14.869         14.558       3.212       3.076       2.722       2.301       1.969       1.790       1.739       15.613         15.559       3.215       3.080       2.729       2.309       1.976       1.797       1.746       16.650         16.343       3.217       3.082       2.733       2.314       1.980       1.801       1.750       17.461         17.157       3.219       3.084       2.737       2.318       1.984       1.806       1.755       18.304         18.291       3.221       3.086       2.741       2.324       1.989       1.811       1.760       19.478         19.181       3.222       3.088       2.743       2.328       1.993       1.814       1.764       20.399         20.106       3.223       3.089       2.745       2.331       1.996       1.817       1.767       21.357         21.067       3.223       3.089       2.745       2.335       1.999 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td></t<>													-		
13.143       3.209       3.072       2.717       2.295       1.964       1.785       1.733       14.869         14.558       3.212       3.076       2.722       2.301       1.969       1.790       1.739       15.613         15.559       3.215       3.080       2.729       2.309       1.976       1.797       1.746       16.650         16.343       3.217       3.082       2.733       2.314       1.980       1.801       1.750       17.461         17.157       3.219       3.084       2.737       2.318       1.984       1.806       1.755       18.304         18.291       3.221       3.086       2.741       2.324       1.989       1.811       1.760       19.478         19.181       3.222       3.088       2.743       2.328       1.993       1.814       1.764       20.399         20.106       3.223       3.089       2.745       2.331       1.996       1.817       1.767       21.357         21.067       3.223       3.089       2.747       2.335       1.999       1.820       1.770       22.352         22.409       3.224       3.090       2.749       2.338       2.002 <t< td=""><td>•</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>_</td><td></td><td></td></t<>	•												_		
14.558       3.212       3.076       2.722       2.301       1.969       1.790       1.739       15.613         15.559       3.215       3.080       2.729       2.309       1.976       1.797       1.746       16.650         16.343       3.217       3.082       2.733       2.314       1.980       1.801       1.750       17.461         17.157       3.219       3.084       2.737       2.318       1.984       1.806       1.755       18.304         18.291       3.221       3.086       2.741       2.324       1.989       1.811       1.760       19.478         19.181       3.222       3.088       2.743       2.328       1.993       1.814       1.764       20.399         20.106       3.222       3.089       2.745       2.331       1.996       1.817       1.767       21.357         21.067       3.223       3.089       2.747       2.335       1.999       1.820       1.770       22.352         22.409       3.224       3.090       2.749       2.338       2.002       1.823       1.773       23.741         23.462       3.224       3.091       2.750       2.341       2.005 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>															
15.559       3.215       3.080       2.729       2.309       1.976       1.797       1.746       16.650         16.343       3.217       3.082       2.733       2.314       1.980       1.801       1.750       17.461         17.157       3.219       3.084       2.737       2.318       1.984       1.806       1.755       18.304         18.291       3.221       3.086       2.741       2.324       1.989       1.811       1.760       19.478         19.181       3.222       3.088       2.743       2.328       1.993       1.814       1.764       20.399         20.106       3.222       3.089       2.745       2.331       1.996       1.817       1.767       21.357         21.067       3.223       3.089       2.747       2.335       1.999       1.820       1.770       22.352         22.409       3.224       3.090       2.749       2.338       2.002       1.823       1.773       23.741         23.462       3.224       3.091       2.750       2.341       2.005       1.825       1.775       24.832		-													
16.343       3.217       3.082       2.733       2.314       1.980       1.801       1.750       17.461         17.157       3.219       3.084       2.737       2.318       1.984       1.806       1.755       18.304         18.291       3.221       3.086       2.741       2.324       1.989       1.811       1.760       19.478         19.181       3.222       3.088       2.743       2.328       1.993       1.814       1.764       20.399         20.106       3.222       3.089       2.745       2.331       1.996       1.817       1.767       21.357         21.067       3.223       3.089       2.747       2.335       1.999       1.820       1.770       22.352         22.409       3.224       3.090       2.749       2.338       2.002       1.823       1.773       23.741         23.462       3.224       3.091       2.750       2.341       2.005       1.825       1.775       24.832															
17.157       3.219       3.084       2.737       2.318       1.984       1.806       1.755       18.304         18.291       3.221       3.086       2.741       2.324       1.989       1.811       1.760       19.478         19.181       3.222       3.088       2.743       2.328       1.993       1.814       1.764       20.399         20.106       3.222       3.089       2.745       2.331       1.996       1.817       1.767       21.357         21.067       3.223       3.089       2.747       2.335       1.999       1.820       1.770       22.352         22.409       3.224       3.090       2.749       2.338       2.002       1.823       1.773       23.741         23.462       3.224       3.091       2.750       2.341       2.005       1.825       1.775       24.832															
18.291       3.221       3.086       2.741       2.324       1.989       1.811       1.760       19.478         19.181       3.222       3.088       2.743       2.328       1.993       1.814       1.764       20.399         20.106       3.222       3.089       2.745       2.331       1.996       1.817       1.767       21.357         21.067       3.223       3.089       2.747       2.335       1.999       1.820       1.770       22.352         22.409       3.224       3.090       2.749       2.338       2.002       1.823       1.773       23.741         23.462       3.224       3.091       2.750       2.341       2.005       1.825       1.775       24.832															
19.181       3.222       3.088       2.743       2.328       1.993       1.814       1.764       20.399         20.106       3.222       3.089       2.745       2.331       1.996       1.817       1.767       21.357         21.067       3.223       3.089       2.747       2.335       1.999       1.820       1.770       22.352         22.409       3.224       3.090       2.749       2.338       2.002       1.823       1.773       23.741         23.462       3.224       3.091       2.750       2.341       2.005       1.825       1.775       24.832	-														
20.106 3.222 3.089 2.745 2.331 1.996 1.817 1.767 21.357 21.067 3.223 3.089 2.747 2.335 1.999 1.820 1.770 22.352 22.409 3.224 3.090 2.749 2.338 2.002 1.823 1.773 23.741 23.462 3.224 3.091 2.750 2.341 2.005 1.825 1.775 24.832															
21.067 3.223 3.089 2.747 2.335 1.999 1.820 1.770 22.352 22.409 3.224 3.090 2.749 2.338 2.002 1.823 1.773 23.741 23.462 3.224 3.091 2.750 2.341 2.005 1.825 1.775 24.832													-		
22.409 3.224 3.090 2.749 2.338 2.002 1.823 1.773 23.741 23.462 3.224 3.091 2.750 2.341 2.005 1.825 1.775 24.832						_									22.352
23.462 3.224 3.091 2.750 2.341 2.005 1.825 1.775 24.832													.1	7.7	
777 25 066														-	
									2.007	7	1.8	27	1	•777	25.966

MAC	H NO =	3.50	CONE	ANGLE	= 15.	00	ANGLE	OF	ATI	LVUK =	5.00
				-c otn		_	PLANE	ANGL	E 0		
					EAM A		120.	150		180.	S/RN
L/RN	0 •	30.	•	50•	90•		1500	190	•	1000	37,
26.088	3 225	3.091	2.7	752	2.346	2	.010	1.83	30	1.780	27.550
27.290	3.225	3.091		752	2.348			1.8	32	1.782	28.795
28.541	3.226	3.092		752	2.349		.014	1.83	33	1.783	30.090
	3.226	3.092		753	2.351		.016	1.8			31.899
30.288	3.226	3.092		753	2.352		.018	1.8		1.786	33.320
31.661	3.226	3.092		753	2.353		.020	1.8		1.787	34.799
33.090	3.227	3.092		753			.021	1.8		1.788	36.339
34.577		3.092		753			.023	1.8		1.789	
36.655	3.227	3.092		753			.024	1.8		1.790	
38.289	3.227	3.093		753			.025	1.8		1.790	41.941
39.989	3.228	3.093		752			.027	1.08		1.791	
42.364	3.228			752			.028	1.8		1.791	
44.231	3.228	3.093		752	2.356		.028	1.8		1.791	
46.175	3.228	3.093		752	2.356		.029	1.8		1.792	
48.199	3.229	3.093		752	2.356		.030	1.8		1.792	-
51.026	3.229	3.093		752	2.355		.030	1.A			
53.249	3.229	3.094		752	2.355		- 031	1.8			
55.563	3.229	3.094		752	2.355		031	1.8			
58.797	3.230	3.094			2.355		.032	1.8			64.045
61.339	3.230	3.094		752	2.355		.032	1.8		1.792	66.785
63.986	3.230	3.094		752	2.355	_	.032	1.8		1.792	69.637
66.741	3.230	3.094		752	2.355		032	1.8		1.792	73.624
70.592	3.230	3.095	2 •	752			032	1.8		1.792	76.758
73.619	3.230	3.095					2.032	1.8		1.792	80.020
76.771	3.230	3.095					2.032	1.8		1.792	84.581
81 • 17-5	3.230	3. 095					2.032	1.8		1.792	88.165
84.638	3.230	3.095			2.354		2.032	1.8		1.793	
88.243	3.231	3.095		752	2.354		2.032	1.8		1.793	
93.281	3.231	3.095			2.354		2.032		48		101.214
97.242					2.354		2.032		348		105.483
101.365				753	2.354		2.032		348	1.793	109.928
105.659				753	2.354		2.032	1.8			116.140
111.659				753	2.354		2.032	1.8			121.024
116.377		3.096		753	2.354		2.032		348		126.108
121.288	3.231	3.096		753			2.032	1.8			133.214
128.152	3.231	3.096		753	2.354		2.032		348		138.801
133.548	3.231	3.095		753	2.354		2.032		348		144.617
139.166	3.231	3.096		753	2 • 354 2 • 354		2.032		348-		150.673
145.016	3.231	3.096		753	-		2.032		348		159.137
153.191	3.231	3.096		753	2.354		2.032 2.032		348°		165.790
159.618	3.231	3.096		· 753	2 • 354 2 • 354		2.032		348		172.718
166.309	3.231	3,096		. 753			2.032		348-		182.400
175.651	3.231	3.096		. 753	2.354		2.032		348-		190.011
183.013	3.231	3.096		• 753	2.354		2.032 2.032		848		197.935
190.668	3.231	3.096		• 753	2.354		2.032		848		209.011
201.366	3.231	3.096	)- 2	. 753	2.354	•	C • U 3 C	10	J T U	T # 1 3/4	_0,7021

۲	IACH NO =	5.00	CONE	ANGLE =	15.00	ANGLE	OF	ATTACK	=	5.00
						D1 4 ME	ANCI	EC		
				E-STREA			ANGL 150		80.	S/RN
L/RN	1 0•	30•	6	0 •	90.	120.	150	• 1	00•	37 1(1)
	- 007	5.032	, E	1.4 7	035	3.399	3.04	5 2.	925	1.309
.741		4.996	4.4		882			-	868	
.849		4.943	4.4		844		2.97		855	1.550
.974		4.824			735	3.223	2.89		783	1.743
1.160		4.684			615		2.80		697	
1.369					490	3.012	2.71		609	
1.599		4.419			371	2.905	2.61		521	2.457
1.850	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	4.310			261	2.804	2.52		436	2.737
2.12	=	4.219			159	2.710	2.44		353	
2.419		4.181			090	2.640	2.37	1 2.	284	
3,039		4.163			041	2.584	2.31	7 2	230	
3.36		4.170			005	2.536	2.26	9 2	185	4.027
3.707		4.195			984	2.502	2.22	28 2	145	4.380
4.05	-	4.235			976	2.480	2.19	7 2.	110	4.741
4.41		4.287		53 2	976	2.467	2.17	77 2	086	5.108
4.77		4.346		87 2	985	2.459	2.18	54 2	071	
5.13		4.411		27 3	000	2.457	2.19		063	5.862
5.51		4.478		71 3	-020	2.460	2.15	52 2	058	
5.89	_	4.546		19 3	043	2-467	2.15		055	
6.27		4.613		367 3	.068-	2.477	2.19		054	
6.67	-	4.678		317 3	. 097	2.489	2 - 15		056	
7.07		4.738		366 3	. 126	2.503	2.16		062	
7.48		4.792		114 3	.156	2.519	2.17		• 069	
7.79				149 3	.179	2.533	2.18		075	
8.22				393 3	209	2.551	2.19		.084	
8.66		4.917	4.5	L34 3	. 240		2.2		.094	
9.11		4.955	4.:		• 269		2.2		.105	
9.59	1 5.293				299	2-607	2.2		-118	
10.08	0 5.319	5.017			• 32 <del>-</del> 7	2.627	2.2		•133	
10.59	1 5.341	5.043			•-354-	2.646	2.2		-148	
11.12	5 5.357				.381	2.666			.163	
11.68	6 5.369				• 405	2.684			•17-9	
12.27	6 5.377	5.093			. 429	2.703			.194	
12.89		5.101			• 451					13.896 14.579
13.55		5.107			. 471	2.739	2.3		• 226 243	
14.26		5.111			. 491	2.756	2.3		-242	-
15.00		5.113			•508	2.773	2.3		.258	
15.79		5.114			• 524	2.788	2.3			
16.64		5.114			• 539 EE2	2.803	2.4		.287	
17.55					• 55.2	2.817	2.4		• 315	
18.52		5.113			564	2.830	2.4 2.4		•328	
19.56					57:3	2 • 842 2 • 853	2.4		-340	
20.64		5.112	_		581	2.863	2.4		.350	
21.77		5.113			-588 -593	2 • 87-2	2.4		• 360	
22.95	5 5 384	5.11	i 4•	423 3	・・・ンプマ	EBUTE	C 7	~ · ·		

МА	CH NO =	5.00	CONE	ANGL	Ε	= 1	5.00	1	ANGLE	OF	AT.T	ACK	=	5.00
		P /	P FR	EE-ST	RE	AΜ	AT	P	LANE	ANGL	.ES			
L/RN	0 •	30•		60•		90	•	1	20•	150	•	18	30 •	S/RN
23.880	5.384	5.111	4.	423	3	• 59	6	2.	878	2.47			367	
25.162	5.384	5.111	4,	422	3	.59	9		886	2.48			375	26.591
26.505	5.385	5.111	4.	422	3	.60	1		893	2.4			381	27.981
27.910	5.386	5.111	4.	421		• 60			899	2.49			387	29.436
29.381	5.386	5,111	4.	420		• 60			905	2.49			392	30.959
30.922	5.387	5.111		419		• 60			909	2.5			397	32.554
32.535	5.388	5.111		418		• 60			914	2.50			+00	34.224
34.224	5.389	5.112		418		• 60			917	2.51			403	35.972
35.992	5.390	5.112		417		. 60			920	2.5			406	37.803
37.844	5.391	5.113		417		• 60			923	2.5			408	39.721
39.783	5.391	5.113		416		• 60			925	2.5			+10	41.728
41.814	5.392	5.114		416		. 60			927	2.5			411	43.831
43.941	5.393	5.114		415		• 60			928	2.5			412	46.033
46.168	5.394	5.115		415		. 60			930	2.5			413	48.339
48.501	5.394	5.115		415		-60			931	2.5			413 414	50.754 53.283
50.944	5.395	5.116		415		60			932	2.5			41-4	55.932
53.503	5.395	5.116		415		60			932	2.5			41 <sup>-4</sup>	58.707
56.183	5.396	5.117		415		60			933	2.5			414	61.613
58.990°	5.396	5.117		415		6.60			933	2.5			414	64.657
61,930	5.397	5.118		415		6.60			933	2.5			415	67-845
65.010	5.397	5.118 5.119		• 415 • 415		5.59			933	2.5			415	71.184
68.235	5.397	5.119		415		5.59			933	2.5			415	73.792
70.754	5.397 5.398	5.119		416		5.59			933	2.5			415	77.41.3
74.252	5.398	5.120		416		5.59			933	2.5			416	81.207
77•916 81•754	5 • 3 <u>-</u> 36	5.120		416		5.5			933	2.5			416	85.180
85.774	5.398	5.120		•417		3.5º			933	2.5			416	
89.985	5.398	5.120		.417		5.59			932	2.5			417	
94.396	5.398	5.120		.417		5.5			932	2.5			417	
99.016	5.398	5.121		. 417		3.59			932	2.5		2.	417	103.051
103.856	5.398	5.121		.418		3.59		2.	932	2.5	38			108-061
1-08-926	5.398	5-121		.418	3	3.59	96	2.	931	2.5	38			113.310
114.236	5.398	5.12i		.418	;	3.59	96	2.	931	2.5	38		_	118.807
119.798	5.398	5.121		.418	3	3.59	96	2-	931	2.5	38			124.566
125.624	5.398	5.121	4	•419		3.59			931	2.5				130.598
131.728	5.398	5.121	4	•419		3.59	<b>97</b>		931	2.5				136.916
138.120	5.398	5-121		•419		3.5			930	2.5				143-534
144.817	5.398	5.121		•419		3 • 5			930	2.5				150.467
151.831	5.398	5.121		• 419		3 • 5			930	2.5				157-729
159.179	5 • 398	5.121		•419		3 • 5			930	2.5				165.336
1-66.875	5.398	5.121		.419		3 • 5			930	2.5				173.303
174.937	5.398	5.121		•419		3.5			930	2.5				181.650
1-83.381	5.398	5:• 1:21		•419		3 • 5			930	2.5				190.392 199.550
192.227	5.398	5 - 121		•419		3.5			930	2.5				209-142
201.492	5.398	5-121	4	<b>.</b> 419	•	3,5	91	2	-930	2.5	34	۷.	# T.A	4U7.144

# NSHC/HOL/TR 75-45

K.	ACH NO =	10.00	CONE AN	SLE = 15.	00 ANGL	E OF ATT	TACK =	5. <b>0</b> 0
		P /	P FREE-S	STREAM A	T PLANE	ANGLES		
L/RN	0.	30:	60.	90.	120.	150.	180.	S/RN
	•	<b>30 •</b>	000	<b>50</b> •	7.5.0	1904	100.	37 KM
.741	18.385	17.665	15.819	13.564	11.587	10.300	9.861	1.369
.912	17.776	17.065		13.046	11.133	9.895	9.473	1.486
1.073	17.100	16.396	14.611	12.479	10.656	9.491	9.097	1.653
1.352	15.993	15.308	13.593	11.577	9.881	8.811	8.451	1.941
1.616	15.113	14.437		10.826	9.232	8.245	7.915	2.214
1.965	14.223	13.548	11.888	10.011	8.505	7.596	7.297	2.576
2.280	13.618	12.924	11.248	9.402	7.959	7.102	6.826	2.902
2.679	13.213	12.476	10.724	8.849	7.424	6.609	6.347	3.315
3.022	13.058	12.271	10.428	8.501	7.063	6.257	6.007	3.671
3.441	13.065	12.207	10.225	8.191	6.718	5.901	5.652	4.104
3.791	13.203	12.275	10.154	8.020	6.499	5.670	5.414	4.466
4.208	13.491	12.471	10.166	7.889	6.297	5.453	5.195	4.899
4.553	13.805	12.709	10.238	7.830	6.172	5.304	5.047	5.256
4.894	14.161	12.994	10.355	7.808	6.080	5.179	4.917	5.609
5.298	14.605	13.371	10.542	7.818	6.003	5.062	4.787	6.327
5.630	14.969	13.694	10.725	7.853	5.960	4.989	4.701	6.370
6.022	15.391	14.074	10.966	7.919	5.927	4.922	4.623	6.776
6.345	15.73 <u>5</u>	14.381	11.175	7.988	5.915	4.879	4.573	7.110
6.727	16.144	14.743	11.428	8.087	5.914	4.839	4.526	7.506
7.042	16.479	15.042	1-1.639	8.179	5.922	4,814	4.493	7.833
7=•418	16.853	15.397	11.888	8.297	5.941	4,794	4.463	8.222
7.730	17.158	15.684	12.095	8.400	5.964	4.784	4.444	8.545
8.105	17.472	16.009	12.343	8.530	5.000	4.777	4.429	8.933
8.419	17.695	16.257	12.549	8.641	6.036	4.775	4.420	9.258
8.799	17.914	16.518	12.796	8.778	6.083	4.777	4.412	9.651
9.121	18.057	16.703	12.999	8.894	6.127	4.785	4.408	9.984
9.447	18.165	16.857	13.197	9.013	6.1:75	4.797	4.468	10.322
9.849	18.252	1-7-000	13.423	9.157	6.237	4.817	4.414	10.738
10.192	18.293	17.086	13.598	9.280	6.2 <u>9</u> 1	4.838	4.425	11.093
10.617	18.311	17.152	13.788	9.429	6.361	4.866	4.443	11.534
10-985	18.305	17.179	13.926	9.555	6.422	4.893	4.462	11.914
11.443	18.281	17.183	14.065	9.708	6.4.99	4.930	4.487	12.388
11.841	18.252		14.156	9.836	6.567	4.966	4.511	12.861
12.343	18.210	17.135	14.236	9.989	6.651	5.013	4.546	13.320
12.783	18.171	17.101	14.279	10.114	6.725	5.054	4.581	13.775
13-339	18.122	17.054	14.303	10.260	6.817	5.107	4.628	14.351
13.828	18.082	17.013	1-4.304	10.375	6.896	5.156	4.668	14.858
14.451	18.039	16.963	14.285	10.502	6.993	5.219	4.720	15.502
15.003	18.010	16.924	14.259	10.595	7.076	5.274	4.769	16.374
15.586	17.989	16.891	14.227	10.675	7.160	5.331	4.823	16.677
15.328	17.972	16.861	14.184	10.749	7.262	5.403	4.890	17.446
16.988	17.964	16.845	14.148	10.794	7.346	5.467	4.947	18.129
17:838 18:600	17.961	16.834	14.106	10.828	7.448	5.544	5.022	19.009
18-600	17.963	16.832	1:4.07-4	10.842	7.531	5.611	5.090	19.797
19.574	17-969	16.835	1:4.044	10.843	7.627	5.692	5.171	20.806

MACH NO = 10.00	CONE ANGLE	= 15.00	ANGLE OF	ATTACK =	5.00

		P /	P FREE-S	TREAM AT	PLANE	ANGLES		
L/RN	0 •	30.	60.	90.	120.	150.	180.	S/RN
20.439	17.976	16.842	14.027	10.836	7.702	5.758	5.241	21.701
21.551	17.985	16.851	14.014	10.821	7.783	5.837	5.326	22.853
22.549	17.994	16.859	14.009	10.806	7.841	5.901	5.396	23.887
23.849	18.003	16.868	14.009	10.786	7.897	5.976	5.481	25.231
25.024	18.010	16.875	14.011	10.770	7.932	6.037	5.548	26.448
26.531	18.018	16.884	14.017	10.753	7.962	6.104	5.623	28.008
27.876	18.024	16.889	14.022	10.741	7.979	6.155	5.681	29.401
29.309	18.028	16.892	14.027	16.731	7.990	6.200	5.733	30.884
31.097	18.035	16.897	14.032	10.724	7.999	6.244	5.784	32.735
32.618	18.040	16.900	14.036	10.720	8.004	6.272	5.817	34.310
34.489	18.044	16.903	14.039	10.717	8.008	6.297	5.847	36.247
₹6.095	18.048	16.905	14.041	10.716	8.009	6.311	5.864	37.910
38.089	18.051	16.907	14.042	10.714	8.010	6.322	5.876	39.974
39.816	18.053	16.909	14.042	10.713	8.009	6.329	5.880	41.763
41.982	18.055	16.911	14.041	10.712	8.007	6.335	5.879	44.005
43.877	18.057	16.912	14.041	10.711	8.005	6.338	5.875	45.966
45.275	18.059	16.914	14.040	10-709	8.003	6.342	5.867	48.449
48.392	18.060	16.915	14.039	10.708	8.001	6.344	5.861	50.641
51.098	18.061	16.917	14.038	10.706	8.000	6.347	5.853	53.442
53.511	18.063	16.919	14.037	16.705	7.999	6.349	5.848	55.943
56.089	18.064	16.920	14.037	10.702	7.998	6.351	5.843	58.509
59.431	18.065	16.922	14.037	10.699	7.997	6.354	5.840	62.070
62.437	18.066	16.923	14.037	10.696	7.996	6.356	5.838	65.181
66.242	18.067	16.926	14.039	10-693	7.996	6.358	5.836	69.120
69.582	18.068	16.927	14.041	10.691	7.995	6.360	5.837	
73.803	18.069	16.929	14.043	10.689	7.993	6.362	5.838	76.948
77.508	18.070	16.930	14.044	10.687	7.992	6.364	5.840	80.784
82.191	18.071	16.931	14.046	19686	7.990	6.367	5.843	85.632
86.301	18.071	16.931	14.048	10685	7.988	6.368	5.845	89.887
91-496	18.071	16. 932	14.050	10.685	7.986	6.370	5.848	95.266
96.056	18.072	16932	14.051	10:.685	7.984	6.371	5.851	99.986
101.819	18.072	16.932	14.052	10.685	7.981	6.372	5.854	105.953
106.878	18.07:2	16.932	14.053	10.686	7.979	6.373		111.190
112.181	18.072	16.932	14.054	10.686	7.978	6.373	5.858	116.680
118.884	18.072	16.932	14.055	10:.688	7.976	6.372	5.860	123.619
124.767	18.072	16-932	14.055	10-689	7.974	6.372	5.861	129.710
132.203	18.07-2	16.932	14.055	10.690	7.973	6.371		137.409
138.730	18.072	16.932	14.056	10.691	7.972	6.371		144.166
146.980	18.072	16.932	14.056	10.692	7.971	6.369		152.707
154.221	18.073	16.932	14.056	10.693	7.971	6.369		160.203
163.374	18.073	16.932	14.056	10.694	7.970	6.367		169.578
171.407	18.073	16.932	14.056	10.694	7.970	6.367		177.995
181.560	18.073	16-932	14.056	10.695	7.970	6.366		188.507
190-472	18.073	16.932	14.056	10.696	7.970	6.365		197.733
201.737	18-073	16.932	14.055	10.696	7.971	6.364	5.861	209.395

# NSHC/HOL/TR 75-45

MACH NO = 15.00 CONE ANGLE = 15.00 ANGLE OF ATTACK = 5.00

		P /	P FREE-S	TREAM AT	PLANE	ANGLES		
L/RN-	0 •	30.	60.	90.	120.	150.	180.	S/RN
.741	40.290	38.689	34.590	29.592	25.220	22.379	21.412	1.309
• 946	38.402	36.834	32.839	28.033	23.884	21.210	20.302	1.521
1.196	35-901	34.377	30.535	25.983	22.128	19.684	18.861	1.780
1.488	33.336	31.854	28.163	23.883	20.335	18.120	17.378	2.082
1.875	30.753	29.288	25.686	21.612	18.337	16.354	15.701	2.483
2.301	28.767	27.25.9	23.634	19.671	16.598	14.788	14.254	2.924
2.688	27.810	26.204	22.418	18.413	15.393	13.679	13.133	3.325
3.153	27.344	25.579	21.502	17.326	14.286	12.595	12.076	3.805
3.619	27.475	25.503	21.040	16.590	13.449	11.749	11.226	4.288
4.015	27.960	25.781	20.914	16.182	12.911	11.192	10.669	4.698
4.469	28.841	26.407	21.014	15.893	12.448	10,667	10.146	5.168
4.849	29.745	27.119	21.262	15.773	12.162	10.307	9.770	5.562
5.282	30.834	28.043	21.689	15.744	11.921	9.987	9.417	6.010
5.702	31.896	28.973	22.211	15.810	11.754	9.749	9.154	6.445
6.053	32.805	29.755	22.698	15.920	11.658	9.586	8.981	6.808
6.452	33.897	30.673	23.281	16.094	11.592	9.431	8.813	7.222
6.842	35.010	31.621	23.865	16.307	11.565	9.308 9.226	8.671	7.625
7.169	35.942	32.452	24.369	16.509 16.764	11.565	9.153	8.569 8.471	7.963 8.352
7.544	36.951	33.413	24.968	16.995	11.591	9.104	8.402	8.582
7.863 8.233	37.718 38.476	34.199	25.499	17.277	11.629 11.689	9.064	8.336	9.065
8.603	39.079	35.038 35.767	26.139 26.795	17.571	11.762	9.042	8.283	9.448
8.922		36.292	27.360	17.832	11.835	9.037	8.250	9.779
9.300	39.472 39.796	36.785	28.009	18.147	11.035	9.045	8.227	10.169
9.684	39.984	37.147	28.627	18.476	12.038	9.063	8.222	10.567
10.021	40.055	37.356	29.119	18.770	12.139	9.084	8.228	10.916
10.425	40.054	37.492	29.635	19.129	12.269	9.116	8.240	11.335
10.783	40.002	37.526	30.018	19.451	12.390	9.152	8.255	11.705
11.217	39.896	37.492	30.388	19.843	12.542	9.204	8.280	12:154
11.671	39.751	37.397	30.668	20-249	12.706	9.264	8.317	12.624
12.076	39.603	37.282	30.834	20.603	12.856	9.321	8.357	13.944
12.57.2	39.417	37.115	30.942	21-016	13.042	9.396	8.411	13.557
13.095	39.239	36.923	30.967	21.420	13.239	9.487	8.469	14.099
13.569	39.107	36.753	30.930	21.748	13.418	9.574	8.529	14.589
14.146	38.991	36.573	30.838	22.095	13.637	9.682	8.613	15.187
14.754	38.913	36.429	30.705	22.393	13.866	9.803	8.709	15.816
15.303	38.873	36.342	30.568	22.604	14.074	9.917	8.799	16.385
15.983	38.852	36.280	30.392	22.794	14.327	1.0.058	8.918	17.388
16.603	38.852	36.257	30.241	22.908	14.554	10.187	9.036	17.730
17.371	38.865	36.259	30.084	22.983	14.826	10.350	9.182	18.526
18.176	38.889	36.283	29.968	23.003	15.095	10.516	9.336	19.358
18.899	38.913	36.310	29.900	22.985	15.318	10.665	9.481	20.107
19.790	38.947	36.345	29.855	22.933	15.564	10.846	9.657	21.030
20.742	38.982	36.381	29.840	22.858	15.787	11.033	9.844	22.015
21.614	39.613	36.414	29.847	22.763	15.954	11.201	10.015	22.918

MA	CH NO =	15.00	CONE AN	GLE = 15.	00 ANGL	E OF AT	TACK =	5.00
		D /	P FREE-	CTOCAM A	IT PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150.	180.	S/RN
EZKN	<b>U</b> •	304	60.	3U +	120.	150.	100-	37 (11
22.711	39.040	36.453	29.867	22-689	16.118	11.400	10221	24.754
23.711	39.058	36.483	29.892		16.228	11.573	10.403	25.089
24.929	39.075	36.509	29.926		16.322	11.766	10.609	26.350
26.213	39.086	36.521	29.957		16.383	11.948	10.810	27.679
27.378	39.093	36.525	29.983		16.414	12.093	10.974	28.885
28.824	39.099	36.524	30.009		16.432	12.241	11.152	30.382
36,343	39.106	36.523	30.027		16.434	12.362	11.305	31.955
31.680	39.113	36.524	30.037		16.430	12.442	11.412	33.340
33.260	39.119	36.527	30.041		16.417	12.511	11.504	34.975
34.630	39.125	36.530	30.041	22.433	16.404	12.554	11.558	36.393
36.252	39.132	36.533	30.039	22.436	16.386	12.588	11.596	38.273
37.909	39.137	36.535	30.036	22.438	16.369	12.609	11.612	39.788
39.362	39.141	3E.539	30.033	22.440	16.355	12.621	11.611	41.292
41-104	39.145	36.543	30.031	22.442	16.341	12.628	11.599	43.996
42.904	39.148	36.548	30.028		16.331	12.650	11.577	44.959
44.500	39.150	36.551	30.027	22.445	16.322	12.630	11.554	46.611
46.432	39.151	36.554	30.025	_	16.314	12.628	11.525	48.512
48.451	39.153	36.557	3:0•:024		16.306	12.625	11.495	50.702
5.0 - 259	39.154	36.559		_	16.300	12.621	11.470	52.574
52.469	39.156	36.560	30.022		16.292	12.617	11.444	54.862
54.461	39.157	36.562	30.021		16.286	12.614	11.424	56.924
55.912	39.159	36.563	3.0.021		16.281	12.612	11.405	59.461
59.517	39.161	36.565	30.020		16277	12.511	11.391	62.158
61.887	39.162	36.567	30.020	-	16.275	12.611	11.384	64.612
64.834	39.164	36.569			16.276	12.614	11.379	67.563
68.003 70.920	39.166 39.168	36.571	30.020			12.618	11.379	78.944 73.964
74.591	39.169	36.573 36.575	30.021 30.023		16.281 16.283	12.621 12.626	11.383 11.391	77.764
77.997	39.170	36.577	30.025		16.284	12.630	11.401	81.291
82.322	39.171	36.579	3:0:029		16.283	12.634	11.414	<b>85.</b> 768
87.082	39.172	36.581	30.032			12.638	11.430	90.695
91.562	39.172					12.641	11.444	95.333
97330			30.039					101.305
103.716	39.172	36.584	30.042			12.644		107.916
109.539	39.173	36.585	-			12.643		113.945
116.736	39.174	36.585	30.048	-	16.239	12.640		121.396
123.271	39.174		30.049		16.236	12.635	-	128.161
131.347	39.175	36.586	30.050			12.626		136.522
139.940	39.175		30.050	-	16.228	12.614		145.418
147.742	39.176	36.586	30-051	22.409	16.227	12.602	11.510	153.496
157.386	39.176	36.586	30.050		16.227	12.586	11.503	163.479
167.646	39.176	36.586	30.050		16.228	12.571		174.102
176.962	39.176	36.586			16.229	12.559		183.747
188.476	39.177	3.6586	3.0.050		16.231	12.546		195.667
200-728	39.177	36.586	30.050	22.420	16.233	12,535	11,433	208.354

MACH NO = 20.00 CONE ANGLE = 15.00 ANGLE OF ATTACK = 5.00

		P /	P FREE-S	TREAM A	T PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150.	180.	S/RN
	-		• • •	-				
.741	70.961	68:127	6.0.872	52.032	44.308	39.290	37.581	1.309
.982	66.787	64.025	57.007	48.602	42.386	36.754	35.183	1.553
1.238	62.210	59.538	52.821	44.893	38.199	33.967	32.543	1.823
1.640	56.250	53.664	47.267	39.938	33.945	30.253	29.024	2.239
2.040	52.071	49.488	43.190	36.146	30.565	27.232	26.144	2.654
2.475	49.107	46.361	39.892	32.974	27.698	24.648	23.665	3.104
2.993	47.520	44.524	37.588	30.445	25.198	22.267	21.362	3.541
3.452	47.367	44.034	36.470	28.899	23.541	20.619	19.721	4.116
3.907	48.115	44.361	36.001	27.898	22.304	19.364	18.468	4.586
4.415	49.771	45.493	36.074	27.210	21.292	18.243	17.355	5.112
4.847	51.592	46.917	36.533	26.916	20.671	17.484	16.580	5.559
5.265	53.463	48.505	37.250	26.832	20,221	16.912	15.936	5.993
5.728	55.553	50.314	38.262	26.932	19.862	16.421	15.408	6.471
6.118	57.428	51.881	39.221	27.137		16.078	15.050	6.876
6.497	59.395	53-499	40.196	27.423	19.534	15.797	14.746	7.268
6.917	61.685	55.444	41.315	27.819	19.469	15.545	14.450	7.703
7.275	63.609	57.190	42.316	28.208		15.375	14.237	8.074
7.627	65.357	58.900	43.359	28.627	19.497	15.243	14.062	8.438
8.024	67.063	60.718	44.616	29.135	19.570	15.131	13.899	8.848
8.369	68.272	62.128	45.765	29.600	19.658	15.067	13.785	9.206
8.714	69.210	63.332	4.6.939	30.085	19.767	15.031	13.697	9.563
9.112	69.962	64.437	48.278	30.663	19.916	15.017	13.632	9.975
9.464	70.361	65.163	49.412	31.196	20.067	15.020	13.603	10.340
9.876	70.566	65.722	50.623	31.840	20.262	15.036	13.589	10.766
17.245	70.575	65.989	51.579	32.441	20.456	15.062	13.586	11.148
10.627	70.465	66.077	52.414	33.079	20.669	15.105	13.588	11.543
11.080	70.225	66.005	53.201	33.853	20.936	15.173	13.604	12.012
11.493	69930	65.825	53.728	34.565	21.189	15.244	13.637	12.440
11.924	69.578	65.558	54.095	35.298	21.460	15.328	13.685	12.886
12.440	69.152	65.163	54.321	36.144	21.789	15.448	13.749	13.420
12.916	68.805	64.766	54.363	36.874	22.099	15.578	13.818	13.913
13.415	68.520	64.367		37.566	22.429	15.723	13.910	14.430
14.010	68.286	63.973	54.066	38.279 38.820	22.830	15.904	14.046	15.046 15.612
14.557	68-155	63.709	53.794		23.207 23.609	16.085 16.281	14.181	
15.132	68.084		53.463				14.537	16.931
15.831 16.485	68.064	63.420	53.046 52.692	39.668	24.104 24.565	16.519 16.751	14.738	17.608
17.167	68.081 68.120	63.398	-	39.904	25.037	16.996	14.949	18.314
17.979	68.178	63.429 63.497	52.396 52.152	40.035	25.574	17.287	15.216	19.154
18.7.23	68.240	63.568	52.021	40.018	26.031	17.562	15.471	19.925
19.505	68.308	63.640	51.954	39.907	26.465	17.848	15.741	20.735
20.455	68.390	63.727	51.946	39.726	26.919	18.200	16.082	21.719
21.346	68.452	63.806	51.979	39.726	27.27.2	18.525	16.400	22.641
22.301	68.499	63.883	52.036	39.335	27.57.6	18.869	16.746	23.630
23.457	68.536	63.954	52.112	39.127	27.850	19.266	17.154	24.826
- O # 771		000 J/T	~ C + T T C		L, TO 2.0			- 11000

ANGLE OF ATTACK = CONE ANGLE = 15.08 5.00 MACH NO = 20.00 PLANE **ANGLES** P / P FREE-STREAM AT S/RN L/RN 90. 120. 150. 180. 30. 60. 0. 17.513 25.912 38.986 19.605 28.026 63.994 52.185 24.506 68.561 27.209 17.918 38.873 19.974 25.759 68.575 64.011 52.262 28.162 20.273 38.812 18.261 28.403 68.584 52.328 28.231 64.012 26.912 28.264 20.542 18.586 29.664 38.780 28.130 68.590 64.003 52.379 63.992 52.419 38.768 28.264 20.809 18.923 31.197 68.596 29.611 38.775 28.239 20.994 19.166 32.582 52.436 68.603 63.988 30.948 19.358 33.999 63.987 38.788 28.197 21.141 32.317 52.439 68.613 21.264 19.512 35.636 52.433 38.802 28.142 33.898 63.987 68.625 37.080 38.817 28.093 21.340 19.598 35.293 63.992 52.423 68.638 19.645 38.540 38.826 28.050 21.392 36.704 68.649 63.998 52.412 19.660 40.238 21.428 64.007 52.402 38.833 28.011 38.343 68.658 19.647 64.017 52.395 38.839 27.983 21.444 41.753 58.665 39.807 38.842 27.964 21.449 19.616 43.304 52.390 64.027 41.305 68.671 27.944 21.444 19.563 45.125 38.839 68.674 64.037 52.385 43.064 21.433 19.507 46.768 52.384 38.840 27.930 44.652 68.677 64.044 21.417 27.918 19.445 48.465 38.843 68.679 64.050 52.384 46.291 27.900 21.396 19.371 50.477 52.384 38.846 48.234 68.681 64.054 52.309 27.882 21.378 19.308 50.004 68.682 64.056 52.386 38.848 19.249 54.215 38.853 27.866 21.362 51.845 68.683 64.057 52.387 56.493 64.058 52.388 38.858 27.845 21.347 19.188 54.045 68.685 19.143 58.583 38.861 27.824 21.333 56.063 68.686 64.059 52.389 52.389 38.861 27.806 21.335 19.108 60.772 68.689 64.059 58.178 21.335 19.08G 63.408 38.859 27.791 68.692 52.388 64.061 60.724 21.338 19.067 65.845 38.855 27.780 52.387 68.695 64.062 63.078 21.344 68.796 27.772 19.064 68.698 64.064 52.386 38.849 65,928 27.772 21.351 19.071 7-1. 539 38.840 68.701 64.067 52.385 68.579 27.778 21.358 19.086 74.452 71.392 68.704 64.070 52.385 38.830 73.915 52.386 38.817 27.790 21.366 19.110 74.833 68.707 64.074 52.388 38.805 27.803 21.373 19.136 81.363 68.709 78.067 64.077 27.814 21.379 19.164 84,956 52.390 38.793 81.538 68.710 64.080 21.384 19.199 89.405 27.824 68.712 64.083 52.395 38.779 85.836 19.231 64.086 38.768 27.826 21.388 93.644 52.399 68.712 89.930 27.821 21.390 19.263 98.256 38.759 94.385 68.713 64.088 52.404 19.299 104.156 21.389 52.410 27.806 99.987 68.713 64.089 38.751 68.713 64.090 52.414 38.748 27.786 21.383 19.328 109.669 105.409 21.370 19,354 115.870 64.091 38.748 27.763 68.713 52.419 111.399 27,737 19.378 123.796 38.752 21.341 68.713 64.091 52.422 119.055 21.295 19.392 131.572 38.758 27.717 126.566 68.714 64.092 52.425 27.703 21.219 19.396 139.930 38.757 64.894 52.427 6.8.715 134.639 21.080 19.389 150,122 38.778 27.705 144.484 68.716 64.095 52.429 20.889 19.361 159.637 52.430 38.785 27.715 153.675 68.717 64.096 27.722 20.586 19.297 169.746 52.429 38.791 163.439 68.718 64.096

38.796

38.798

38.799

175.346

186.462

200.018

68.718

68.718

68.718

64.096

64.096

64.096

52.429

52.429

52.429

27.726

27.732

27.741

19.985

18.961

15.981

19.137 182.973

18.833 193.582

18.004 207.615

#### NSHC/HOL/TR 75-45

MACH NO = 25.00

ANGLE OF ATTACK =

CONE ANGLE = 15.00 P / P FREE-STREAM AT PLANE **ANGLES** S/RN 150. 180. 60. 90. 120. L/RN 30. 0. 58.367 1.309 68.849 61.036 .741 110.388 105.970 80.882 94.660 1.760 51.362 70.927 60.332 53.622 94.004 83.439 1,177 98.197 44.060 2.310 71.947 60,679 51.524 45.917 1.708 85.848 81.835 36.640 3.083 51.255 42.970 38.173 76.202 72.011 62.043 2.455 33.093 31.703 3.848 37.604 73.189 68.336 57.209 45.823 3.194 28.279 4.605 55.544 42.885 34.200 29.641 3.925 74.450 68.576 5.389 56.004 41.475 31.999 27.200 25.795 78.685 71.607 4.682 25.717 24.247 6.068 57.667 41.173 30.811 5.338 83.236 75.426 6.707 24.702 23.156 30.129 87.704 79.220 59.861 41.453 5.955 22.315 7.356 62.348 42.143 29.759 23.950 92.852 83.447 6.582 23.475 21.754 7.921 42.979 29.641 64.659 7.128 97.620 87.606 8.462 43.922 29.668 23.145 21.338 67.088 7.650 101.837 91.702 9.029 22.906 21.005 8.198 105.412 95.627 69.903 45.012 29.814 30.031 22.770 20.782 9.542 8.694 107.719 98.534 72.602 46.069 22.699 20.622 10.052 9.186 109.132 100.675 75.263 47.182 30.311 30.676 22.681 20.510 10.607 77.936 48.472 9.722 109.816 102.144 49.758 31,962 22.714 20.454 11.127 80.081 10.225 109.883 102.795 20.441 11.659 10.738 109.595 102.911 81.832 51.139 31.491 22.789 20.471 12.253 32.000 22.916 83.234 52.726 11.312 108.991 102.614 12.820 32.509 23.073 20.539 84.055 54.241 11.860 108.251 102.060 23.266 55.753 33.057 20.644 13.409 12.429 107.476 101.309 84.444 20.799 14.073 33.699 23.512 84.452 57.312 13.070 106.766 100.404 23.772 20.979 14.710 13.686 106.303 99.649 84.164 58.612 34.339 14.379 106.006 83.617 59.809 35.087 24.087 21.211 15.428 99.046 82.967 60.687 35.828 24.407 21.458 16.117 15.045 105.897 98.713 24.752 21.736 16.830 82.272 61.334 36.610 15.734 105.902 98.570 81.590 98.581 61.780 37.492 25.154 22.072 17.631 16.507 105.980 81.167 25.552 22.414 18.397 61.976 38.319 17.247 106.079 98.682 59-133 25.976 22.787 19.189 61.997 18.012 106.193 80.787 98.819 20.077 26.463 23.225 80.612 61.866 39.972 18.870 106.330 98.975 40.684 26.937 23,663 20.926 19.690 106.461 99.118 80.580 61.642 27.432 24.129 21.803 80.636 61.351 41.319 20.537 106.577 99.260 80.752 61.005 41.911 27.986 24.665 22.787 21.487 106.671 99.405 80.87-8 60.697 42.366 28.510 25.182 23.728 99.513 22.396 106.726 60.433 42.734 29.036 25.715 24.701 81.005 99.585 23.336 106.759 25.795 29.595 26.302 60.215 43.039 24.393 106.774 99.628 81.137 26.843 26.842 81.251 60.082 43.242 30.088 25-404 106.775 99.622 30.547 43.378 27.373 27.926 81.353 60.005 26.451 106.770 99.603 30.996 27.920 29.145 43.458 27.629 106.761 99.571 81.440 59.974 30.313 28.386 99.538 81.491 59.980 43.480 31.359 28.756 106.749 43,460 81.512 60.006 31.672 28.804 31.523 29.925 106.736 99.507

60.046

60.089

60.132

60.176

81.506

81.481

81.443

81.397

99.477

99.453

99.433

99.419

31.240 106.722

32.499 106.713

33.804 106.708

35.272 106.705

43:401

43.325

43.240

43.155

31.954

32.165

32.332

32.468

29.193

29.486

29.717

29.897

32.883

34.187

35.538

37.058

# NSHC/HOL/TR 75-45

MACH NO = 25.80 CONE ANGLE = 15.00 ANGLE OF ATTACK = 5.00

		P /	P FREE-ST	REAM A	T PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150.	180=•	S/RN
36,679	106.703	99.413	81.353	60.213	43.090	32.554	30-:005	38.514
		99.414	81.310	60.245	43.038	32.609	30.066	40.152
	106.699	99.418	81.274	60.264	43.007	32.630	30.079	41.721
	106.697	99.423	81.243	60.272	42.991	32.627	30.055	43.348
	106.695	99.430	81.215	60.267	42.985	32.600	29.998	45.177
	106.695	99.434	81.195	60.254	42.987	32.561	29.921	46.930
	106.695	99.438	81.183	60.234	42.995	32.513	29.831	48.747
	106.696	99.441	81.175	60.207	43.007	32.458	29.724	50.791
	106.697	99.443	81.172	60.180	43.020	32.411	29.627	52.749
	106.699	99.445	81.172	60.153	43.034	32.370	29.535	54.779
54.595	106.703	99.447	81.175	60.123	43.050	32.336	29.450	57.062
56.708	106.707	99.448	81.178	60.097	43.064	32.313	29.387	59.250
58.899	106.710	99.450	81.182	60.071	43.076	32.299	29.341	61.518
61.362	106.715	99.452	81.186	60.046	43.087	32.291	29.311	64.069
	106.718	99.455	81.191	60.024	43.093	32.288	29.302	66.513
	106.720	99.458	81.195	60.005	43.096	32.289	29.309	69.047
	106.722	99.461	81.200	59.988	43.095	32,293	29.330	71.896
	106.722	99.464	81.205	59.974	43.092	32.298	29.360	74.627
	106.722	99.467	81.210	59.963	43.068	32.305	29.397	77.458
	106.722	99.469	81.215	59.952	43.082	32.314	29.443	80.642
	106.720	99.470	81.219	59.944	43.075	32.323	29.489	
	106.719	99.470	81.224	59.937	43.068	32.331	29.536	86.857
	106.717	99.478	81.228	59.930	43.061	32.340	29.588	90.415
	106.715	99.469	81.232	59.925	43.054	32.347	29.636	
	106.713	99.468	81.236	59.921 59.917	43.047 43.041	32.353 32.356	-	101.336
	106.712	99.466 99.464	81.239 81.241	59.917	43.036	32.358		105.146
	106.711	99.462	81.243	59.910	43.031	32.359		109.432
109.148		99.460	81.245	59.907	43.027	32.358		113.540
113.261		99.458	81.246	59.904	43.024	32.357		117.798
	106.711	99.456	81.246	59.900	43.022	32.355		122.587
	106.711	99.456	81.247	59.896	43.021	32.353		127.177
	106.712	99.455	81.247	59.892	43.020	32.350		131.935
	106.713	99.455	81.247	59.888	43.019	32.348		137.286
	106.714	99.455	81.248	59.883	43.019	32.345		142.415
	106.715	99.456	81.249	59.878	43.020	32.343	29.980	147.731
	106.716	99.457	81.250	59.873	43.021	32.340	29.990	153.711
	106.717	99.457	81.251	59.868	43.021	32.338	29.998	159.442
159.225	106.717	99.458	81.252	59.862	43.023	32.337		165.383
	106.718	99.459	81.254	59.856	43.024	32.335	-	172.065
	106.718	99.460	81.257	59.851	43.025	32.334		178.469
	106.718	99.460	81.259	59.846	43.026	32-333		1-85 - 10-8
	106.718	99.461	81.262	59.840	43.027	32.332		192.574
	106.718	99.461	81.265	59.835	43.028	32.332		199.730
200.176	106.718	99.461	81.268	59.830	43.029	32.332	30.038	207.779

MACH NO = 30.00 CONE ANGLE = 15.00 ANGLE OF ATTACK = 5.00

		Р/	P FREE-S	STREAM AT	PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150.	180.	S/RN
<del>-</del>				,,,,		2200	2000	J
.741	158.583	152.227	135.957	116.146	98,837	87.605	83.774	1.309
			119.732		86.538	76.902	73,656	1.759
		115.939		85.728	72.738	64.820	62.202	2.363
	109.116		88.818	73.360	61.491	54.620	52.425	3.079
	104.617	97.555	81.426	65.013	53.230	45.795	44.817	3.905
	106.752	98.187	79.249	60.962	48.487	41.965	40.021	4.657
	112.976		80.034	59.028	45.409	38.540	36.533	5.432
	119.459		82.465	58.628	43.737	36.448	34.349	6.104
	126.426		85.868	59.096	42.713	34.909	32.593	6.785
	133.327		89.117	60.013	42.236	33.933	31.600	7.374
	140.759		92.682	61.296	42.052	33.199	30.736	7.976
	147.179		96.484	62.740	42.099	32.700	30.105	8.550
		137.644		64.159	42.290	32.389	29.672	9.063
		142.050		65.775	42.617	32.177	29.325	9.609
		144.972		67.357	43.010	32.072	29.025	10.110
		146.930		69.203	43: 520	32.041	28.931	10.656
		147.751		71.051	44.058	32.080	28.845	11.167
		147.819		77.214	44.708	32.188	28.818	11.735
	-	147.341		75,334	45.364	32.347	28.850	12.275
-		146.387		77.709	46.136	32.577	28.944	12.882
		145.112		80.069	46.976	32.866	29.099	13.513
		143.860		82.133	47.817	33.181	29.295	14.118
		142.691		84.139	48.808	33.570	29.561	14.801
		141.923		85.707	49.798	33.972	29.854	15.455
		141.446		87.053	50: 951	34.451	30.221	16.191
		141.292		87.950	52: 081	34.931	30.606	16.895
-		141.352		86.557	53.357	35.494	31.072	17-686
		141.525		88.809	54.551	36.053	31.547	18: 440
		141.758		88.801	55.822	36.703	32.113	19.286
		141.980		88.589	56.935	37.342	32.685	20.094
		142.220		88.195	58.042	38.075	33.356	20.094
		142.456		87.693	59.022	38.845	34.081	21.936
		142.652		87.198	59.802	39.584	34.792	22.831
		142.815		86.697	60: 508	40.404	35.601	23.836
		142.905		86.312	61.034	41.164	36.374	24.796
		142.942		86.005	61:471	41.971	37.228	25.874
		142.934		85.822				
				-	61.761	42.681	38.017	26.905
		142.895		85.719	61.963	43.395	38.853	28.063
		142.794		85.693 85.796	62.058 62.076	43.990	39.588	29.171
		142.744		85.73.6 85.77.2		44.558	40.321	30.417
		142.701		85•772 85•:838	62.017 61.914	45.044	40.972	31.711
		142.701		65.915	61.771	45.421 45.757		32.950 34.342
		142.633		85.986	61.634	45.757	41.940	
		142.616			61.501			35.675
55.004	T20+T62	T45 + UTD	TT0 + 0 4 5	86.060	01.001	46.200	42.522	37.173

MACH NO = 30.00	CONE ANGLE = 1	15.00 ANGLE OF	ATTACK = 5.00
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		p /	P FREE-S	TREAM AT	PLANE	ANGLES		
L/RN	<b>0</b> •	30.	60.	90 <sub>1.</sub>	120.	150 •	180.	S/RN
				•				
36.769	153.122	142.611	116.577	86.120	61.403	46.326	42.675	38.608
38.327	153.120	142.615	116.512	36.170	61328	46.405	42.761	40.221
39.819	153.118	142.623	116.458	86.198	61284	46.430	42.775	41.765
41.495	153.115	142.633	116.408	86.208	61.260	46.415	42.729	43.500
		142.643		86.200	61.254	46.368	42.640	45.162
		142.650		86.177	61.260	46.294	42.504	47.030
		142.656		86.143	61 • 27-6	46.207	42.344	48.971
		142.660		86.105	61.295	46.125	42.185	50.830
		142.663		86.061	61.320	46.045	42.014	52.919
		142.665		86.019	61-345	45.983	41.869	54.919
		142.666		85.974	61.373	45.932	41.733	57.167
		142.667		85.934	61.398	45.899	41.633	59.321
		142.669		85.894	61.420	45.876	41.557	61.741
		142.672		85.859	61.436	45.865	41.515	64.058 66.663
		142.676		85.826	61.446	45.861	41.499	
	153.150		116.358	85.797	61-450	45.863	41.511	69.370 71.962
		142.685		85.775	61-448	45.870	41.541	74.875
		142.690		85.754		45.881	41.647	77.665
		142.694		85.738	61.436	45.893 45.909	41.717	80.801
		142.697		85.724	61.427	45.924	41.717	83.805
		142.699		85.713	61.417	45.939	41.865	87.181
			116.397	85.702	61.405	45.952	41.939	
		142.699		85.694 85.687	51.383	45.964	42.017	
			116.408	85.682	61.373	45.972	42.087	
			116.413 116.418	85.676	61.363	45.977		101.443
			116.421	85.671	61.355	45.980		105.509
			116.424	85.667	61.348	45.980		109.402
			116.426	85.662	61.342	45.979		113.779
		142.680		85.657	61.338	45.977		117.971
			116.429	85.652		45.974		122.683
			116.430	85.647	61.332	45.970		127.195
			116.430	85.641	61.331	45.966		132.268
			116.431	85.635	61.330	45.962		137.126
137,205	153.140	142.576	116.431	85.628	61.331	45.957		142.586
142.685	153.142	142.677	116.432	85.621	61.331	45.953	42.517	148.260
			116.433	85.613	61.332	45.949		153.694
			116.435	85-605	61.334	45.946	42.540	159.802
			116.437	85.598	61.335	45.944	42.549	165.651
			116,440	85.589	61.337	45.942		172.226
			116.443	85.582	61.338	45.940		178.524
			116.447	85.573	61.340	45.939		185.602
			116.451	85.566	61.341	45.938		192.381
			116.456	85.558	61.342	45.938		200.001
200.311	153.146	142.685	116.460	85.551	51.344	45 <b>.</b> 937	42.594	207.919

MA	CH NO =	3.50	CONE	ANGL	.E =	20	.00	A	NGLE	OF	AT	TACK	=	5.00
				EE-SI			AT			ANGL				
L/RN	9 <b>.</b>	30 •		60•		90.		120	,•	150	•	1	80.	S/RN
					_				_			_		
•658	3.754	3.636								2.38			285	
	3.826	3.700		373						2.36			284	
•85 <u>1</u>	3.863	3.735								2.39			307	
		3.746		408						2.39			310	
		3.742								2.38			300	
		3.727								2.36			286	
		3.711								2.35			271	
	3.837									2.33				2.222
		3.691								2.35				2.406
		3.690	3.	327	2.	896		2.55		2.30			225	
		3.680	3.	313	2•	879		2.51	. 4	2.28			209	
	3.830	3.676	3.	296	2•	858		2 • 40	15	2.27	7 0	2.	193	3.002
	3.864	3.707	3.	31-5	2•	863		2 • 48	88	2.20	5 6	2.	186	3.215
	3.897	3.738	3.	341	5.	882		2 • 49	36	2.20	5 U	2.	185	3.489
3.001	3.933	3.768	. ું	358	2.	890		2.50	13	2.20	01	2.	184	3.715
3 • 21 8	3.969	3.802	3,	384	2.	900		2.50	19	2.20	53	2.	183	3.946
	4.006	3:836	3•	411	2•	919		2 • 51	. 6	2.2	) B	3,	105	3.215 3.489 3.715 3.946 4.183 4.425 4.673
3.668	4.044	3.871	3•	437	2•	938		2.52	2.7	2.2	7 7	2.	192	4.425
3.902	4.081	3.906	3.	465	2.	956		2.54	10	2.21	88	ζ.	204	4.6/3
4 • 141	4.117	3.44411	.5.4	444	<i>-</i>	4/5		7 - 77	3.5	( • C	44		21 B	4.969
4.388	4 • 1 5 0	3.973	3.	521	2.	-997		2.000	) b	2 • 3	19	2.	227	5.191
4.642	4.179	4-0003	3•	549	5•	018		2.50	51	2 • 5	18	2 •	235	5.462
4.904	4.205	4.031	ა -	5/6	<b>3•</b>	038		2:05	37	2.3	29	2.	244	5.748
5 . 175	4.228	4.055	<b>ن</b> .	601	. J.	020		2 • 6 3	[ <del>'4</del>	2 - 31	42	2 (	254	6.029
5.456	4.248	4.0/6	ა.	625	٠ -	0/9		2.00	19	2 3	70	2 (	201	6.328
	4.265													
														7.044
	4.298													7.384 7.740
-6 -7 8 3	4.310	4-141	34	741	٠, ح	120		2 7	74	2.4				8.114
7-134	4.320	4.176	J•	726	) • 2	100		2 7	) <i>(</i>	2.4			351	
7 903	4.328	4.169		776	ું જ	JUU TOD		2 77	2 /s	2 4	5 7 5 7	2	365	
	4.334 4.340	4.175		745	7	-212		2.74	34	2.4	) () E E	2	376	
8.302	4.343			753					• <i>r</i> 5 9					9.819
9,197	4.345	4.184		76.0		232		2.77		2.4			39,7	
9.687		4.186		765		241		2.78		2.5			409	
10.208	4•349 4•350	4.189		770		248		2.79		2.5			421	
10.763	4.351	4.190		773	_	255		2.80		2.5			430	
11.356	4.352	4.191		-77 <u>-</u> 6		261		2.80		2.5			439	
12.155	4 • 353	4.192		-778		267		2.81		2.5			451	
12-844	4.353	4.193		779		27 C		2.82		2.5			460	
13.583	4.353	4.193		780		274		2.82		2.5			467	
14.374	4.353	4.193		781		276		2.83		2.5			473	
15.222	4.354	4.193		781		278		2.8		2.5			479	
16.13?	4.354	4.193		782		280		2.84		2.5			484	
TO OTTOK	70004	マチエフひ	J •	106	J (			F 4 0.	T U		<b>5</b>	<u> </u>	. +0+	21 4000

MACI	H NO =	3.50	CONE	ANGL	E = 20.0	O ANGLE	OF A	TTACK =	5.00
		P /	P FR	FF-STI	REAM AT	PLANE	ANGLES	s	
L/RN	0.	30.		60.	90•	120 •	150 •		S/RN
			_						
	4.354	4.193		782	3.281	2.843	2.572		
18.137	4.355	4.194		782	3.282	2.846	2.575		
19.222 20.366	4.356 4.356	4.194 4.195		782 782	3.283 3.283	2.848 2.850	2.578		
21.570	4.357	4.195		782 782		2 • 851	2.580 2.582		
22.839	4.358	4.196		782	3.284	2.853	2.583		
24.522	4.359	4.197		782	3.284	2.854	2.585		
25.949	4.359	4.197		782	3.284	2.855	2.586		
27.453	4.360	4.198		783		2.855	2.587		
29.037	4.360	4.198		783		2.856	2.587		
30.706	4.361	4.199		783		2.856	2.588		
32.465	4.361	4.199		783		2.856	2.589	2.503	35.070
34.319	4.362	4.199	3.	783	3.284	2.857	2.589		37.043
36.272	4.362	4.200		784	3.284	2 • 85-7	2.589		
38.330	4.362	4.200		784	3.284	2.857	2.590		
40.499	4.363	4.201		784	3.284	2.857	2.590		
42.784	4.363	4.201		784	3.284	2.857	2.590		
45.193	4.363	4.201		784	3.283	2 85-7	2.590		
47.731	4.363	4-201		785	3.283	2.857	2.590		
51.096	4.364	4.202	3.	785		2 - 857	2.591		
53.952	4.364	4.202		785	3.283	2.856	2.591		
56.962	4.364			785		2.856	2.591		
60•133 63•475	4.364 4.364	4.202 4.202		786 786		2 • 856 2 • 856	2.591		
66.998	4.364	4.202		786		2 • 856	2.591		
	4.364	4.202		786		2 • 856	2.591		
	4.364	4.202		786		2.856	2.591		
	4.364	4.202		786		2-856	2.591		
	4.364	4.202		786		2.856	2.591		
87.667	4.364	4.202		786		2.856	2.591		
	4.364	4.202		786		2.856		2-504	
	4.364	4.202		786	3.284		2.590		1.04.360
104.320	4.364	4.202		787	3.284	2.856	2.590	2.504	111.536
116.041	4.364	4.202	3.	787	3.284	2.856	2.590	2.504	117.625
116.071	4.364	4.202	3∙	787	3.285	2.856	2.590	2.504	124.042
122.426	4.354	4 • 20 2		787	3.285	2.856	2.590		136.805
129.123	4.354	4.202		787	3.285	2.856	2.530		137.931
136.181	4.364	4.202		787	3.285	2.856	2.590		145.442
143.618	4.364	4.202		787	3.285	2.856	2.590		153.357
151 • 457	4.364	4.202		787	3.285	2 • 856	2.590		161.698
159.717	4.364	4.202		787	3.285	2 • 856	2.590		170.489
168.422	4.364	4.202		787	3.285	2.856	2.590		179.753
177.596	4.364	4.202		787 797	3.285	2.856	2.590		189.515
187 - 264	4.364	4 + 20 2		787 787	3.285	2-+856-	2 - 590		199,804
200-085	4.364	4.202	ა•	101	3.285	2.857	2.590	£ • 904	213.447

MA	CH NO =	5.00	CONE ANGL	E = 20.00	) ANGLE	E OF A	TTACK =	5.00
			D COCC-CI	DEAM AT	PLANE	ANGLE	9	
	•		P FREE-ST	90 •	120.	150 •		SZRN
L/RN	0.	30.	60.	30 €	120.	1700	2000	<u> </u>
CE 0	6.769	6.539	5.942	5.200	4.538	4.100	3.949	1.222
•658	6.786	6.546	5.927		4.488	4.044		1.328
•758	6.751	6.508	5.885	5.125	4.458	4.021		1.445
.868 1.018	6.662	6.415	5.784	5.022	4.362	3.935		1.604
1.180	6.554	6.304		4.912	4.260	3.840		1.778
1.355	6.451	6.197		4.799	4.156	3.746		
1.541	6.368	6.109	5.459	4.696	4.056	3.653		
1.736	6.314	6.048	5.384	4.609	3.967	3.568		
1.937	6.295	6.018	5.334	4.543	3.893	3.493		
2.102	6.279	6.000	5.297	4.492	3.837	3.439		
2.314	6.311	6.004	5 • 265	4.439	3.772	3.376		
2.529	6.379	6.065	5 • 295	4.432	3.742	3.329		
2.747	6.461	6.129	5.328	4.437	3.731	3.299		3.445
2.967	6.562	6.217		4.445	3.720			
3.189	6.672	6.312		4.470				
3.413	6.787	6.416		4.506				
3.639	6.902	6.522		4.543				
3.868	7-009	6.626		4.587		3.263		
4.053	7.087	6.705		4.627				
4.286	7.174	6.794		4.677		3.280		
4.524	7.251	6.874		4.730		3.296		-
4.766	7.321	6.945		4.786	3.859 3.890	3.315 3.336		
5.013	7.385				3.924	3.362		
5.266	7.443	7.068		4.898 4.952	3.962	3.387		
5.525	7.494	7.121		5.006	4.001	3.414		
5.793	7.537	7.169 7.210	_	5.056	4.039	3.44		-
6.070	7.573	7.210	-	5.094	4.06.9	3.464		
6.299 6.596	7.596 7.619	7.266			4.109			
	7.635	7.288		5.182	4.151			
6.906 7.231	7.646	7.200			4.18.9			
7.573	7.652	7.314					9 3.386	8.580
7.933	7.656	7.320	-	5.290	4.263		3 3.417	
	7.657	7.323					7 3.448	
8.719	7.656	7.324	5	5.347	4.331	3.69		
9.150	7.655	7.324		5.371	4.362	3.72	4 3.514	
9.516	7.654	7.323		5.387	4.387	3.75	0 3.542	
10.002	7.653	7.322		5.403	4.413	3.78	1 3.574	
10.523	7.651	7.321		5.415	4.437	3.81		
11.084	7.648	7.319		5.424	4.460-	3.83		
11.688	7.646	7.317	_	5.429	4 • 479	₹•86		
12.340	7.645	7.315		5.433	4.495	3.88		
13.045	7.644	7.313		5.435	4.509	3.90		
13.808	7.644			5.436	4.519	3.92		
14.635	7.644	7.313	6.465	5•436	4.527	3.94	2 3.753	16.095

MACH NO = 500 CONE ANGLE = 20.00 ANGLE OF AT	TT-ACK =	5.00
P / P FREE-STREAM AT PLANE ANGLES	2	
L/RN 0. 30. 60. 90. 120. 150.	180.	SZRN
27/11 00 000 900 1200 1900	1000	37 K 14
15.346 7.645 7.312 6.464 5.436 4.531 3.952	3.766	16.852
16.302 7.646 7.313 6.463 5.435 4.535 3.963	3.780	17.870
17.339 7.647 7.314 6.462 5.435 4.538 3.970	3.790	18.974
18.464 7.649 7.315 6.462 5.434 4.540 3.976	3.799	20.170
19.666 7.651 7.316 6.462 5.433 4.541 3.979	3.804	21.450
20.939 7.653 7.318 6.463 5.433 4.542 3.981	3.806	22.804
22.285 7.655 7.320 6.463 5.433 4.543 3.982	3.808	24.237
23.710 7.657 7.322 6.464 5.433 4.544 3.983		25.753
25.217 7.659 7.323 6.465 5.433 4.545 3.984	3.808	27.357
26.486 7.660 7.325 6.465 5.433 4.545 3.984	3.807	28.707
28.155 7.662 7.326 6.466 5.433 4.545 3.985	3.807	30.484
29.922 7.663 7.327 6.467 5.433 4.546 3.985	3.806	32.364
31.792 7.664 7.328 6.468 5.433 4.546 3.986	3.806	34.354
33.771 7.665 7.329 6.468 5.433 4.546 3.986	3.806	36.460
35.866 7.666 7.330 6.469 5.432 4.547 3.986	3.805	38.690
38.084 7.667 7.331 6.469 5.432 4.547 3.987	3.805	41-050
40.432 7.667 7.332 6.470 5.432 4.547 3.987	3.805	43.548
42.917 7.568 7.332 6.471 5.432 4.547 3.988	3.805	46.193
45.010 7.668 7.333 6.471 5.432 4.546 3.938	3.805	48.420
47.764 7.669 7.333 6.472 5.432 4.546 3.988	3.805	51.351
50.679 7.669 7.334 6.472 5.432 4.546 3.988	3.805	54.453
53.765 7.669 7.334 6.473 5.432 4.546 3.989	3.806	57.737
57.033 7.669 7.334 6.473 5.432 4.546 3.989	3.806	61-214
60.492 7.669 7-334 6.474 5.433 4.545 3.989	3.806	64.896
64.154 7.669 7.334 6.474 5.433 4.545 3.989	3.806	68.793
68.031 7.669 7.334 6.474 5.433 4.545 3.989	3.806	72.919
72.135 7.669 7.335 6.474 5.433 4.545 3.989	3.806	77.286
75.592 7.669 7.335 6.475 5.434 4.545 3.989	3.807	80-965
80.140 7.670 7.335 6.475 5.434 4.545 3.989	3.807	85.805
84.955 7.670 7.335 6.475 5.434 4.545 3.989	3.807	
90.053 7.670 7.335 6.475 5.434 4.545 3.989	3.807	96.354
95.450 7.670 7.335 6.475 5.435 4.545 3.989		102-097
101.163 7.670 7.335 6.475 5.435 4.545 3.989		108.177
107.212 7.670 7.335 6.475 5.435 4.545 3.989		114.615
113.616 7.670 7.335 6.475 5.435 4.545 3.989		121-429
120.396 7.670 7.335 6.475 5.435 4.545 3.989		128.644
126.105 7.670 7.335 6.475 5.435 4.545 3.989		134.720
133.618 7.670 7.335 6.475 5.435 4.546 3.989		142.714
141.571 7.670 7.335 6.475 5.436 4.546 3.989		151-178
149.991 7.670 7.335 6.475 5.436 4.546 3.989		160.139
158.905 7.670 7.335 6.475 5.436 4.546 3.989		169.625
168.343 7.670 7.335 6.475 5.436 4.546 3.989		179.668
178.334 7.670 7.335 6.475 5.436 4.546 3.989		190.300
188.911 7.670 7.335 6.475 5.436 4.546 3.989		201.557
200.109 7.670 7.335 6.475 5.436 4.546 3.989		213.473

	<b>PACH NO = 10.00</b>	CONE ANGL	E = 20.00	ANGLE OF	ATTACK =	5.0ù
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L/RN 0. 30. 60. 90. 120. 150. 180. S/RN  .658 24.299 23.410 21.120 18.301 15.810 14.175 13.613 1.222 .797 23.847 22.944 20.628 17.807 15.337 13.728 13.177 1.370 .955 23.112 22.199 19.880 17.099 14.708 13.172 12.650 1.538 1.161 22.191 21.274 18.970 16.246 13.935 12.646 11.957 1.757 1.387 21.373 20.440 18.118 15.421 13.180 11.778 11.308 1.997 1.592 20.842 19.884 17.517 14.805 12.591 11.228 10.775 2.216 1.841 20.472 19.461 16.998 14.226 12.007 10.667 10.227 2.481 2.094 20.339 19.268 16.653 13.777 11.525 10.191 9.761 2.750 2.349 20.522 19.314 16.474 13.441 11.136 9.782 9.352 3.021 2.602 20.909 19.599 16.539 13.311 10.888 9.499 9.052 3.290 2.816 21.392 19.977 16.672 13.249 10.720 9.310 8.855 3.591 3.053 22.051 20.524 16.6748 13.264 10.554 9.107 8.659 3.781 3.305 22.734 21.136 17.301 13.351 10.527 8.951 8.478 4.939 3.777 23.921 22.290 18.155 13.678 10.508 8.814 8.273 4.754 3.976 24.365 22.717 18.533 13.363 10.541 8.783 8.239 4.752 4.433 25.376 23.653 19.343 14.667 10.508 8.814 8.273 4.754 4.433 25.376 23.653 19.343 14.363 10.508 8.814 8.273 4.754 4.433 25.376 23.653 19.343 14.563 10.691 8.760 8.206 8.479 4.433 25.376 23.653 19.343 14.363 10.607 8.760 8.206 8.792 4.433 25.376 23.653 19.343 14.363 10.601 8.760 8.206 8.792 5.584 24.112 19.712 14.627 10.798 8.760 8.206 8.179 5.239 4.659 25.844 24.112 19.712 14.627 10.798 8.760 8.206 6.175 5.586 27.164 25.671 21.414 15.909 11.507 9.062 8.306 6.775 5.587 27.246 25.811 21.704 16.167 11.677 9.152 8.335 6.941 6.510 27.274 25.977 22.442 17.769 12.591 9.746 8.633 7.738 8.672 27.246 25.811 21.704 16.167 11.677 9.152 8.335 6.941 6.510 27.274 25.508 22.434 17.397 12.591 9.746 8.633 7.738 8.672 27.246 25.811 21.704 16.167 11.677 9.152 8.305 9.106 8.672 27.246 25.811 21.704 16.167 11.677 9.159 9.750 9.757 6.302 27.246 25.811 21.704 16.167 11.677 9.159 9.746 8.633 7.738 8.672 27.246 25.811 21.704 16.167 11.677 9.159 9.746 8.633 7.738 8.672 27.246 25.811 21.704 16.167 11.677 9.159 9.746 8.633 7.738 8.672 26.993 25.576 22.271 16.908 12.201 9.804 9.903 11.101 1.332 26.893 25.560 22.361			<b>D</b> /	D EDEE_ 0	TOCAM	AT PLANE	ANGLES	•	
.658 24.299 23.410 21.120 18.301 15.810 14.175 13.613 1.222 .797 23.647 22.944 20.628 17.807 15.337 13.728 13.177 1.370 .955 23.112 22.199 19.880 17.807 15.337 13.728 13.177 1.370 .955 23.112 22.199 19.880 17.809 14.708 13.172 12.650 1.538 1.616 12.191 21.274 18.970 16.246 13.935 12.464 11.967 1.757 1.387 21.373 20.440 18.118 15.421 13.180 11.778 11.308 1.997 1.592 20.642 19.884 17.517 14.805 12.591 11.228 10.775 2.216 1.841 20.472 19.461 16.998 14.226 12.007 10.667 18.227 2.481 2.094 20.339 19.268 16.653 13.777 11.525 10.191 9.761 2.750 2.349 20.522 19.314 16.474 13.441 11.136 9.782 9.352 3.021 2.349 20.522 19.314 16.474 13.441 11.136 9.782 9.352 3.021 2.612 20.909 19.599 16.539 13.311 10.888 9.499 9.045 3.290 2.816 21.392 19.977 16.672 13.269 10.720 9.310 8.855 3.519 3.063 22.734 21.136 17.301 13.351 10.584 9.107 8.659 3.781 3.305 22.734 21.136 17.301 13.351 10.527 8.951 8.478 4.039 3.543 23.364 21.741 17.715 13.488 10.505 8.862 8.345 4.292 3.777 23.921 22.290 18.155 13.678 10.508 8.814 8.273 4.541 3.976 24.365 22.717 18.533 13.663 10.591 8.783 8.239 4.752 4.205 24.875 23.188 18.952 14.105 10.607 8.760 8.206 4.997 4.686 62.523 24.544 20.072 14.699 10.927 8.800 8.172 5.721 5.002 26.546 24.576 20.381 15.129 11.043 8.834 8.184 5.930 5.312 26.820 25.206 20.740 15.393 11.043 8.834 8.184 5.930 5.312 26.820 25.206 20.740 15.393 11.043 8.834 8.184 5.930 5.312 26.820 25.266 20.741 15.599 11.675 9.152 8.386 6.941 5.547 27.124 25.907 22.119 16.584 12.015 9.357 8.536 7.496 6.782 27.245 25.861 21.704 16.167 11.675 9.152 8.386 6.941 6.249 27.275 25.885 21.916 16.388 11.827 9.288 8.454 7.171 6.510 27.274 25.927 22.119 16.548 12.015 9.357 8.536 7.496 6.782 27.146 25.671 21.414 15.909 11.507 9.062 8.306 8.752 8.040 7.363 27.172 25.859 22.434 17.397 12.591 9.746 8.873 8.537 7.458 6.782 27.146 25.900 22.375 17.160 12.393 9.609 8.752 8.040 7.957 27.076 25.770 22.442 17.759 12.960 10.035 9.106 8.989 7.688 26.893 25.534 22.208 18.107 31.442 10.894 9.993 11.512 10.328 26.893 25.536 22.206 17.957 14.431 11.888 10.968 11.511 12.425 2	1 /ON	•						4.00	C ( D )
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.797 23.847 22.944 20.628 17.807 15.337 13.728 13.177 1.370 1.955 23.112 22.199 19.880 17.099 14.708 13.172 12.650 1.538 1.661 22.191 21.274 18.970 16.246 13.935 12.464 11.967 1.757 1.387 21.373 20.440 18.118 15.421 13.180 11.778 11.308 1.997 1.592 20.842 19.884 17.517 14.805 12.591 11.228 10.775 2.161 1.841 20.472 19.461 16.998 14.226 12.007 10.667 10.227 2.481 2.094 20.339 19.268 16.653 13.777 11.525 10.191 9.761 2.750 2.349 20.522 19.314 16.474 13.441 11.36 9.782 9.352 3.051 2.602 20.909 19.599 16.539 13.311 10.888 9.999 9.045 3.290 2.816 21.392 19.977 16.672 13.249 10.720 9.310 8.855 3.519 3.063 22.051 20.524 16.948 13.264 10.584 9.107 8.659 3.781 3.305 22.734 21.136 17.301 13.351 10.584 9.107 8.659 3.781 3.543 23.364 22.290 18.155 13.678 10.505 8.862 8.345 4.929 3.777 23.921 22.290 18.155 13.678 10.506 8.814 8.273 4.541 3.976 24.365 22.717 18.533 13.663 10.506 8.814 8.273 4.541 3.976 24.365 22.717 18.533 13.663 10.506 8.814 8.273 4.541 3.976 24.365 22.717 18.533 13.663 10.506 8.814 8.273 4.541 3.976 24.365 22.717 18.533 13.663 10.506 8.816 8.273 4.541 3.976 24.365 22.717 18.533 13.663 10.506 8.816 8.273 4.551 3.94 4.552 25.844 24.112 19.712 14.627 10.798 8.772 8.166 4.24 5.659 25.844 24.112 19.712 14.627 10.798 8.772 8.166 4.24 5.565 27.845 20.072 11.506 8.862 8.306 6.775 5.480 25.266 20.740 15.393 11.184 8.893 8.206 6.175 5.480 25.654 24.876 20.381 15.129 11.043 8.334 8.184 5.930 4.552 25.844 24.112 19.712 14.627 10.798 8.772 8.366 6.779 5.547 27.024 25.471 21.089 15.654 11.340 8.992 8.286 6.679 5.540 27.275 25.886 21.916 16.508 12.201 9.484 8.633 7.494 7.952 27.275 25.886 21.916 16.508 12.201 9.484 8.633 7.494 7.952 27.275 25.886 21.916 16.508 12.201 9.484 8.633 7.494 7.955 27.245 25.811 21.704 16.507 10.509 9.575 10.167 7.955 12.609 27.275 25.860 22.434 17.290 12.393 9.609 8.752 8.004 9.973 11.012 25.574 25.859 22.434 17.290 12.393 9.609 8.752 8.004 9.973 11.012 25.574 25.859 22.434 17.580 12.393 9.609 8.752 10.167 9.441 11.267 10.275 12.441 11.352 26.993 25.556 22.061 17.956 14.415 11.429 10.797 13.744	650	04. 200	07 440	04 400	40 704	45 640	41 475	47 647	4 020
.955 23.112 22.199 19.880 17.099 14.708 13.172 12.650 1.538 1.161 22.191 21.274 18.970 16.246 13.935 12.464 11.967 1.757 1.387 21.373 20.440 18.118 15.421 13.180 11.778 11.308 1.997 1.592 20.842 19.884 17.517 14.805 12.591 11.228 10.775 2.216 1.841 20.472 19.461 16.998 14.226 12.007 10.667 10.227 2.481 2.094 20.339 19.268 16.653 13.777 11.525 10.191 9.761 2.750 2.349 20.522 19.314 16.474 13.441 11.136 9.782 9.352 3.021 2.602 20.909 19.599 16.653 13.311 10.888 9.499 9.045 3.290 2.616 21.392 19.977 16.672 13.249 10.720 9.310 8.655 3.519 3.035 22.051 20.524 16.948 13.264 10.526 49.107 8.659 3.781 3.305 22.734 21.136 17.301 13.351 10.527 8.951 8.478 4.033 3.543 23.364 21.741 17.715 13.488 10.505 8.862 8.345 4.292 3.777 23.921 22.290 18.155 13.678 10.505 8.862 8.345 4.292 3.777 23.921 22.290 18.155 13.678 10.505 8.862 8.345 4.292 3.777 23.921 22.290 18.155 13.678 10.506 8.861 8.783 8.239 4.754 4.433 25.376 23.653 19.343 14.363 10.501 8.760 8.206 4.997 4.433 25.376 23.653 19.343 14.363 10.501 8.760 8.206 4.997 4.433 25.376 23.653 19.343 14.363 10.601 8.760 8.206 4.997 4.433 25.376 23.653 19.343 14.363 10.601 8.760 8.206 4.997 4.433 25.376 23.653 19.343 14.363 10.601 8.760 8.206 4.997 4.659 25.844 24.112 19.712 14.627 10.798 8.772 8.161 5.480 4.893 8.206 6.75 5.082 26.546 24.876 20.381 15.129 11.043 8.334 8.206 6.75 5.706 27.244 25.671 21.049 15.539 11.184 8.893 8.206 6.941 6.500 27.275 25.886 21.916 16.588 21.1567 9.152 8.385 6.941 6.510 27.275 25.885 22.335 11.609 12.393 9.609 8.752 8.385 6.941 6.510 27.275 25.885 22.335 17.160 12.393 9.609 8.752 8.385 6.941 6.510 27.275 25.886 22.335 18.137 13.551 10.704 16.167 11.675 9.152 8.385 6.941 6.510 27.275 25.885 22.335 17.160 12.393 9.609 8.752 8.385 6.941 6.510 27.275 25.885 22.335 17.160 12.393 9.609 8.752 8.385 6.941 6.510 27.275 25.885 22.335 17.160 12.393 9.609 8.752 8.385 6.941 6.510 27.275 25.885 22.335 18.137 13.551 10.035 9.106 8.989 9.106 8.989 9.106 8.989 9.106 8.989 9.106 9.752 10.654 9.355 22.335 12.335 13.335 13.335 13.144 10.704 9.732 10.545 9.356 22.335 12									
1.161       22.191       21.274       18.970       16.246       13.935       12.464       11.967       1.757         1.387       21.373       20.440       18.118       15.421       13.180       11.778       11.308       1.977         1.841       20.472       19.461       16.998       14.226       12.007       10.667       16.227       2.481         2.094       20.339       19.268       16.653       13.777       11.525       10.191       9.761       2.750         2.846       21.392       19.977       16.672       13.441       11.136       9.782       9.352       3.021         2.816       21.392       19.977       16.572       13.249       10.720       9.310       8.855       3.519         3.063       22.051       20.524       16.948       13.264       10.584       9.107       8.659       3.781         3.305       22.734       21.136       17.715       13.489       10.505       8.862       8.345       4.292         3.777       23.921       22.290       18.155       13.673       10.501       8.862       8.345       4.292         3.776       23.553       23.168       18.952       14.1									
1.387       21.373       20.440       18.118       15.421       13.180       11.778       11.308       1.977         1.841       20.472       19.461       16.998       17.517       14.805       12.591       11.228       10.775       2.481         2.094       20.339       19.268       16.653       13.777       11.525       10.191       9.761       2.750         2.349       20.522       19.314       16.474       13.441       11.136       9.782       9.352       3.021         2.602       20.909       19.599       16.539       13.311       10.888       9.499       9.045       3.290         2.816       21.392       19.597       16.672       13.249       10.720       9.310       8.855       3.519         3.063       22.051       20.524       16.948       13.264       10.584       9.107       8.659       3.781         3.777       23.921       22.290       18.155       13.688       10.506       8.862       8.345       4.292         2.7365       22.717       18.533       13.683       10.516       8.862       8.345       4.292         3.976       24.365       22.717       18.533       13.86									
1.592       20.842       19.864       17.517       14.805       12.591       11.228       10.775       2.2481         2.094       20.339       19.268       16.653       13.777       11.525       10.191       9.761       2.750         2.349       20.522       19.314       16.674       13.441       11.136       9.782       9.352       3.021         2.816       21.392       19.977       16.572       13.249       10.720       9.310       8.855       3.519         3.063       22.051       20.524       16.948       13.264       10.584       9.107       8.659       3.781         3.543       23.364       21.136       17.715       13.488       10.508       9.107       8.659       3.781         3.543       23.364       21.136       17.715       13.486       10.508       8.865       3.354       4.932         3.777       23.921       22.290       18.155       13.678       10.508       8.814       8.273       4.541         3.976       24.365       22.717       18.533       13.863       10.541       8.783       8.239       4.752         4.205       24.875       23.188       18.952       14.105<									
1.841 20.472 19.461 16.998 14.226 12.007 10.667 10.227 2.481 2.094 20.339 19.268 16.653 13.777 11.525 10.191 9.761 2.750 2.349 20.522 19.314 16.474 13.441 11.136 9.782 9.352 3.021 2.602 20.909 19.599 16.539 13.311 10.888 9.499 9.045 3.290 2.816 21.392 19.977 16.672 13.249 10.720 9.310 8.855 3.519 3.063 22.051 20.524 16.948 13.264 10.564 9.107 8.659 3.781 3.305 22.734 21.136 17.301 13.351 10.527 8.951 8.478 4.033 3.543 23.364 21.741 17.715 13.488 10.505 8.862 8.345 4.292 3.777 23.921 22.290 18.155 13.678 10.506 8.862 8.345 4.292 4.205 24.875 23.188 18.952 14.105 10.607 8.763 8.239 4.752 4.205 24.875 23.653 19.343 14.363 10.541 8.783 8.239 4.752 4.205 24.875 23.653 19.343 14.363 10.691 8.765 8.179 5.239 4.659 25.844 24.112 19.712 14.627 10.798 8.772 8.167 5.480 4.886 26.253 24.544 20.072 14.899 10.927 8.800 8.172 5.480 4.886 26.253 24.544 20.072 14.899 10.927 8.800 8.172 5.721 5.547 27.024 25.471 21.089 15.654 11.340 8.972 8.306 6.175 5.547 27.024 25.471 21.089 15.654 11.340 8.972 8.306 6.175 6.249 27.275 25.886 21.916 16.388 11.827 9.238 8.384 6.6679 6.249 27.275 25.886 21.916 16.388 11.827 9.238 8.385 6.941 6.249 27.275 25.886 21.916 16.388 11.827 9.238 8.355 6.941 6.380 27.274 25.902 22.271 16.908 11.507 9.062 8.386 6.679 6.032 27.274 25.902 22.271 16.908 11.807 9.062 8.386 6.679 6.249 27.275 25.886 21.916 16.388 11.827 9.238 8.355 6.941 7.363 27.124 25.902 22.375 17.160 12.339 9.008 8.752 8.385 6.941 7.363 27.274 25.902 22.375 17.160 12.339 9.009 8.752 8.385 6.941 7.363 27.172 25.859 22.434 17.397 12.591 9.746 8.873 8.357 7.630 27.130 25.820 22.434 17.397 12.591 9.746 8.873 8.357 7.630 27.130 25.820 22.435 17.582 12.757 9.879 9.973 8.641 9.758 11.032 27.200 25.716 22.408 17.920 13.164 10.195 9.260 9.358 8.304 27.020 25.716 22.408 17.920 13.164 10.195 9.260 9.358 8.662 27.070 25.576 22.408 17.920 13.164 10.195 9.260 9.358 8.672 27.274 25.557 22.060 18.107 13.574 10.559 9.575 10.167 9.419 26.931 25.557 22.608 18.107 13.574 10.599 10.035 9.106 10.555 10.545 9.555 22.061 17.957 14.431 11.488 10.968 14.416 11.306									
2.094								10.775	
2.349					14.226	12.007	10.667	16.227	2.481
2.602       20.909       19.599       16.539       13.311       10.888       9.499       9.045       3.290         2.816       21.392       19.977       16.672       13.249       10.720       9.310       8.655       3.519         3.063       22.7734       21.136       17.301       13.351       10.527       8.951       8.478       4.033         3.577       23.921       22.290       18.155       13.678       10.505       8.862       8.345       4.292         3.777       23.921       22.2717       18.533       13.863       10.505       8.864       8.273       4.752         4.205       24.875       23.188       18.952       14.105       10.607       8.760       8.206       4.997         4.433       25.376       23.653       19.343       14.363       10.691       8.760       8.167       5.480         4.433       25.374       24.544       20.072       14.699       10.927       8.772       8.167       5.480         4.433       25.546       24.876       20.381       15.129       11.043       8.334       8.167       5.480         5.082       26.526       26.547       21.140       15.933 <td>2.094</td> <td>20.339</td> <td>19.268</td> <td>16.653</td> <td>13.777</td> <td>11.525</td> <td></td> <td>9.761</td> <td>2.750</td>	2.094	20.339	19.268	16.653	13.777	11.525		9.761	2.750
2.602       20.909       19.599       16.539       13.311       10.888       9,499       9.485       3.290         2.816       21.392       19.977       16.672       13.249       10.720       9,310       8.655       3.519         3.063       22.734       21.136       17.301       13.351       10.527       8.951       8.478       4.033         3.577       23.921       22.290       18.155       13.678       10.508       8.862       8.345       4.292         3.777       23.921       22.717       18.533       13.863       10.501       8.763       8.239       4.752         4.205       24.365       22.717       18.533       13.863       10.541       8.763       8.239       4.752         4.433       25.376       23.653       19.343       14.363       10.691       8.760       8.206       4.997         4.483       25.374       24.544       20.072       14.699       0.779       8.772       8.167       5.480         4.4836       26.253       24.544       20.072       14.699       10.927       8.800       8.172       5.721         5.082       26.546       24.876       20.331       15.140	2.349	20.522	19.314	16.474	13.441	11.136	9.782	9.352	3.021
3.063         22.051         20.524         16.948         13.264         10.584         9.107         8.659         3.781           3.305         22.734         21.136         17.301         13.351         16.527         8.951         8.478         4.039           3.777         23.921         22.290         18.155         13.678         10.508         8.814         8.273         4.541           3.976         24.365         22.717         18.533         13.863         10.541         8.760         8.206         4.997           4.433         25.376         23.6853         19.343         14.105         10.691         8.760         8.179         5.239           4.659         25.844         24.112         19.712         14.627         10.798         8.772         8.167         5.480           4.886         26.554         24.876         20.381         15.129         11.043         8.348         8.206         6.175           5.547         27.024         25.471         21.089         15.654         11.340         8.972         8.244         6.424           5.787         27.024         25.471         21.089         15.654         11.340         8.972         8.244 <td>2.602</td> <td>20.909</td> <td>19.599</td> <td>16.539</td> <td>13.311</td> <td>10.888</td> <td>9.499</td> <td>9.045</td> <td>3.290</td>	2.602	20.909	19.599	16.539	13.311	10.888	9.499	9.045	3.290
3.063         22.051         20.524         16.948         13.264         10.584         9.107         8.659         3.781           3.305         22.734         21.136         17.301         13.351         10.527         8.951         8.478         4.039           3.543         23.364         21.741         17.715         13.488         10.508         8.844         8.273         4.541           3.976         24.365         22.717         18.533         13.863         10.541         8.760         8.206         4.997           4.205         24.365         23.188         18.952         14.105         10.607         8.760         8.206         4.997           4.659         25.844         24.112         19.712         14.627         10.798         8.772         8.167         5.480           4.886         26.5546         24.876         20.381         15.129         11.043         8.348         8.266         6.175           5.312         26.824         25.471         21.089         15.654         11.043         8.348         8.244         6.424           5.736         27.164         25.471         21.089         15.654         11.340         8.972         8.244 <td>2.816</td> <td>21.392</td> <td>19.977</td> <td>16.672</td> <td>13.249</td> <td>1-0.720</td> <td>9.310</td> <td>8.855</td> <td>3.519</td>	2.816	21.392	19.977	16.672	13.249	1-0.720	9.310	8.855	3.519
3.305         22.734         21.136         17.301         13.351         10.527         8.951         8.478         4.939           3.577         23.921         22.290         18.155         13.678         10.508         8.861         8.273         4.541           3.976         24.365         22.717         18.533         13.863         10.541         8.763         8.239         4.752           4.205         24.875         23.168         18.952         14.105         10.607         8.760         8.206         4.997           4.433         25.376         23.653         19.343         14.363         10.691         8.776         8.167         5.480           4.886         26.253         24.544         20.072         14.899         10.927         8.800         8.172         5.721           5.312         26.860         25.206         20.740         15.333         11.043         8.334         8.184         5.930           5.312         26.860         25.206         20.740         15.333         11.184         8.893         8.206         6.175           5.547         27.024         25.671         21.414         15.999         11.507         9.062         8.306 <td>3.063</td> <td>22.051</td> <td>20.524</td> <td>16.948</td> <td></td> <td></td> <td></td> <td></td> <td></td>	3.063	22.051	20.524	16.948					
3.543         23.364         21.741         17.715         13.488         10.505         8.862         8.345         4.292           3.777         23.921         22.290         18.155         13.678         10.508         8.814         8.273         4.541           3.976         24.365         22.717         18.533         13.863         10.501         8.760         8.206         4.997           4.433         25.376         23.653         19.343         14.363         10.601         8.756         8.167         5.239           4.686         26.253         24.544         20.072         14.899         10.927         8.800         8.172         5.721           5.082         26.546         24.876         20.374         15.393         11.043         8.834         8.164         5.930           5.312         26.820         25.206         20.740         15.393         11.184         8.893         8.206         6.175           5.786         27.164         25.671         21.414         15.999         15.07         9.062         8.306         6.941           6.729         27.275         25.886         21.916         16.388         11.827         9.238         8.454									
3.777 23.921 22.290 18.155 13.678 10.508 8.814 8.273 4.541 3.976 24.365 22.717 18.533 13.863 10.541 8.783 8.239 4.752 4.205 24.875 23.188 18.952 14.105 10.607 8.760 8.206 4.997 4.433 25.376 23.653 19.343 14.363 10.691 8.765 8.179 5.239 4.659 25.844 24.112 19.712 14.627 10.798 8.772 8.167 5.480 4.886 26.253 24.544 20.072 14.899 10.927 8.800 8.172 5.721 5.082 26.546 24.876 20.381 15.129 11.043 8.834 8.184 5.930 5.312 26.802 25.206 20.740 15.393 11.184 8.893 8.206 6.175 5.5547 27.024 25.471 21.089 15.654 11.340 8.972 8.244 6.424 5.786 27.164 25.671 21.414 15.999 11.507 9.062 8.306 6.679 6.032 27.246 25.811 21.704 16.167 11.507 9.062 8.306 6.679 6.249 27.275 25.886 21.916 16.368 11.827 9.238 8.454 7.171 6.510 27.274 25.927 22.119 16.548 12.015 9.357 8.536 7.449 6.782 27.2249 25.927 22.271 16.908 12.201 9.484 8.633 7.738 7.065 27.214 25.900 22.375 17.160 12.393 9.609 8.752 8.040 7.353 27.130 25.820 22.452 17.582 12.257 9.879 8.973 8.536 7.449 7.363 27.172 25.859 22.443 17.397 12.591 9.746 8.873 8.357 7.957 27.076 25.770 22.442 17.769 12.960 10.035 9.106 8.989 8.304 27.020 25.716 22.492 17.582 12.757 9.879 8.973 8.641 7.957 27.076 25.770 22.442 17.769 12.960 10.035 9.106 8.989 8.304 27.020 25.516 22.498 17.920 13.164 10.195 9.260 9.358 8.667 9.419 26.913 25.554 22.263 18.103 13.574 10.570 9.570 9.575 10.167 9.419 26.913 25.574 22.263 18.103 13.574 10.570 9.575 10.167 9.419 26.913 25.574 22.263 18.143 13.741 10.704 9.732 10.545 9.555 26.899 25.558 22.208 18.156 13.924 10.894 9.903 11.012 10.322 26.893 25.558 22.208 18.156 13.924 10.894 9.903 11.012 10.322 26.993 25.556 22.083 18.073 14.313 11.442 10.459 12.602 11.352 26.993 25.556 22.083 18.073 14.313 11.442 10.459 12.602 11.352 26.993 25.556 22.083 18.073 14.313 11.442 10.459 12.602 11.305 26.993 25.557 22.061 17.995 14.431 11.595 10.620 13.111 12.425 26.990 25.5557 22.061 17.995 14.431 11.898 10.968 14.416 13.719 26.949 25.579 22.070 17.925 14.429 11.996 11.117 15.121									
3.976									
4.205       24.875       23.188       18.952       14.105       10.607       8.760       8.206       4.997         4.433       25.376       23.653       19.343       14.363       10.691       8.756       8.179       5.239         4.659       25.844       24.112       19.712       14.627       10.798       8.772       8.167       5.480         5.082       26.546       24.544       20.072       14.899       10.927       8.800       8.172       5.721         5.082       26.546       24.876       20.381       15.129       11.043       8.834       8.184       5.930         5.312       26.820       25.206       20.740       15.393       11.184       8.893       8.206       6.175         5.786       27.164       25.471       21.089       15.654       11.340       8.972       8.244       6.424         5.786       27.164       25.671       21.414       15.909       11.507       9.628       8.306       6.679         6.249       27.275       25.885       21.916       16.467       11.6767       9.152       8.385       6.941         6.510       27.274       25.9027       22.711       16.908 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
4.433       25.376       23.653       19.343       14.363       10.691       8.756       8.179       5.239         4.886       25.844       24.112       19.712       14.627       10.798       8.772       8.167       5.480         4.886       26.253       24.876       20.381       15.129       11.043       8.834       8.184       5.930         5.312       26.820       25.206       20.740       15.393       11.184       8.893       8.206       6.175         5.547       27.024       25.471       21.089       15.654       11.340       8.972       8.244       6.424         5.786       27.164       25.671       21.414       15.909       11.507       9.062       8.306       6.679         6.249       27.275       25.886       21.916       16.388       11.827       9.238       8.454       7.171         6.510       27.274       25.927       22.271       16.908       12.201       9.484       8.633       7.738         7.065       27.214       25.900       22.375       17.160       12.393       9.609       8.752       8.040         7.363       27.172       25.859       22.434       17.397				-	-				
4.659       25.844       24.112       19.712       14.627       10.798       8.772       8.167       5.480         4.886       26.253       24.544       20.072       14.899       10.927       8.800       8.172       5.721         5.082       25.5476       20.381       15.129       11.043       8.834       8.184       5.930         5.312       26.820       25.206       20.740       15.333       11.184       8.893       8.206       6.175         5.547       27.024       25.471       21.089       15.654       11.340       8.972       8.244       6.424         5.786       27.164       25.671       21.414       15.990       11.507       9.062       8.306       6.679         6.032       27.275       25.885       21.916       16.388       11.827       9.238       8.454       7.471         6.510       27.274       25.927       22.271       16.648       12.015       9.357       8.536       7.449         6.782       27.249       25.927       22.271       16.6908       12.201       9.484       8.633       7.738         7.065       27.214       25.990       22.375       17.160       12.393 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
4.886									
5.082       26.546       24.876       20.381       15.129       11.043       8.334       8.184       5.930         5.312       26.820       25.206       20.740       15.393       11.184       8.893       8.206       6.175         5.547       27.024       25.471       21.089       15.654       11.340       8.972       8.244       6.424         5.786       27.164       25.671       21.414       15.909       11.507       9.062       8.306       6.679         6.032       27.246       25.811       21.704       16.167       11.675       9.152       8.385       6.941         6.249       27.275       25.886       21.916       16.388       11.827       9.238       8.454       7.171         6.510       27.274       25.927       22.271       16.908       12.201       9.484       8.633       7.738         7.065       27.214       25.900       22.375       17.160       12.393       9.609       8.752       8.040         7.363       27.172       25.859       22.434       17.397       12.591       9.746       8.873       8.357         7.630       27.130       25.820       22.452       17.582									
5.312       26.820       25.206       20.740       15.393       11.184       8.893       8.206       6.175         5.547       27.024       25.471       21.089       15.654       11.340       8.972       8.244       6.424         5.786       27.164       25.671       21.414       15.909       11.507       9.062       8.306       6.679         6.032       27.275       25.881       21.704       16.167       11.675       9.152       8.385       6.941         6.249       27.275       25.886       21.916       16.388       11.827       9.238       8.454       7.171         6.510       27.274       25.927       22.2119       16.648       12.015       9.357       8.536       7.449         6.782       27.249       25.927       22.2271       16.908       12.201       9.484       8.633       7.738         7.065       27.214       25.990       22.375       17.160       12.393       9.609       8.752       8.040         7.363       27.172       25.859       22.434       17.397       12.591       9.746       8.873       8.357         7.630       27.130       25.820       22.452       17.582 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
5.547       27.024       25.471       21.089       15.654       11.340       8.972       8.244       6.424         5.786       27.164       25.671       21.414       15.909       11.507       9.062       8.306       6.679         6.032       27.246       25.811       21.704       16.167       11.675       9.152       8.385       6.941         6.249       27.275       25.886       21.916       16.388       11.827       9.238       8.454       7.171         6.510       27.274       25.927       22.119       16.648       12.015       9.357       8.536       7.449         6.782       27.249       25.927       22.471       16.908       12.201       9.484       8.633       7.738         7.065       27.214       25.900       22.375       17.160       12.393       9.609       8.752       8.040         7.363       27.172       25.859       22.434       17.397       12.591       9.746       8.873       8.357         7.630       27.130       25.820       22.452       17.582       12.757       9.879       8.973       8.641         7.957       27.076       25.770       22.442       17.769									
5.786       27.164       25.671       21.414       15.909       11.507       9.062       8.306       6.679         6.032       27.246       25.811       21.704       16.167       11.675       9.152       8.385       6.941         6.249       27.275       25.886       21.916       16.388       11.827       9.238       8.454       7.171         6.510       27.274       25.927       22.2119       16.648       12.015       9.357       8.536       7.449         6.782       27.249       25.927       22.271       16.908       12.201       9.484       8.633       7.738         7.065       27.214       25.900       22.375       17.160       12.393       9.609       8.752       8.040         7.363       27.172       25.859       22.434       17.397       12.757       9.879       8.973       8.641         7.957       27.076       25.770       22.442       17.769       12.960       10.035       9.106       8.989         8.304       27.020       25.716       22.408       17.920       13.164       10.195       9.260       9.358         8.672       26.972       25.660       22.361       18.032 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td>_</td> <td></td> <td></td> <td></td>						_			
6.032 27.246 25.811 21.704 16.167 11.675 9.152 8.385 6.941 6.249 27.275 25.886 21.916 16.308 11.827 9.238 8.454 7.171 6.510 27.274 25.927 22.119 16.648 12.015 9.357 8.536 7.449 6.782 27.249 25.927 22.271 16.908 12.201 9.484 8.633 7.738 7.065 27.214 25.900 22.375 17.160 12.393 9.609 8.752 8.040 7.363 27.172 25.859 22.434 17.397 12.591 9.746 8.873 8.357 7.630 27.130 25.820 22.452 17.582 12.757 9.879 8.973 8.641 7.957 27.076 25.770 22.442 17.769 12.960 10.035 9.106 8.989 8.304 27.020 25.716 22.408 17.920 13.164 10.195 9.260 9.358 8.672 26.972 25.660 22.361 18.032 13.369 10.376 9.410 9.750 9.064 26.935 25.660 22.361 18.032 13.369 10.376 9.410 9.750 9.419 26.913 25.574 22.263 18.143 13.741 10.704 9.732 10.545 9.858 26.899 25.548 22.208 18.163 13.924 10.894 9.903 11.012 10.328 26.893 25.534 22.156 18.142 14.084 11.076 10.089 11.512 10.825 26.895 25.531 22.113 18.111 14.214 11.267 10.275 12.041 11.352 26.903 25.556 22.083 18.073 14.313 11.442 10.459 12.602 11.830 26.911 25.544 22.068 18.037 14.313 11.442 10.459 12.602 13.111 12.425 26.920 25.555 22.061 17.996 14.415 11.749 10.797 13.744 13.056 26.933 25.565 22.061 17.995 14.429 11.996 11.117 15.121					-			8.244	
6.249 27.275 25.886 21.916 16.388 11.827 9.238 8.454 7.171 6.510 27.274 25.927 22.119 16.648 12.015 9.357 8.536 7.449 6.782 27.249 25.927 22.271 16.908 12.201 9.484 8.633 7.738 7.065 27.214 25.900 22.375 17.160 12.393 9.609 8.752 8.040 7.363 27.172 25.859 22.434 17.397 12.591 9.746 8.873 8.357 7.630 27.130 25.820 22.452 17.582 12.757 9.879 8.973 8.641 7.957 27.076 25.770 22.442 17.769 12.960 10.035 9.106 8.989 8.304 27.020 25.716 22.408 17.920 13.164 10.195 9.260 9.358 8.672 26.972 25.660 22.361 18.032 13.369 10.376 9.410 9.750 9.644 26.935 25.668 22.309 18.107 13.574 10.550 9.575 10.167 9.419 26.913 25.574 22.263 18.143 13.741 10.704 9.732 10.545 9.858 26.899 25.548 22.208 18.156 13.741 10.894 9.903 11.512 10.825 26.893 25.534 22.156 18.142 14.084 11.076 10.089 11.512 10.825 26.895 25.534 22.113 18.111 14.214 11.267 10.275 12.041 11.352 26.903 25.536 22.083 18.073 14.313 11.442 10.459 12.602 13.111 12.425 26.920 25.555 22.061 17.996 14.415 11.749 10.797 13.744 13.056 26.933 25.556 22.061 17.995 14.429 11.996 11.117 15.121				21.414	15.909	11.507	9.062	8.306	6.679
6.510 27.274 25.927 22.119 16.648 12.015 9.357 8.536 7.449 6.782 27.249 25.927 22.271 16.908 12.201 9.484 8.633 7.738 7.065 27.214 25.900 22.375 17.160 12.393 9.609 8.752 8.040 7.363 27.172 25.859 22.434 17.397 12.591 9.746 8.873 8.357 7.630 27.130 25.820 22.452 17.582 12.757 9.879 8.973 8.641 7.957 27.076 25.770 22.442 17.769 12.960 10.035 9.106 8.989 8.304 27.020 25.716 22.408 17.920 13.164 10.195 9.260 9.358 8.672 26.972 25.660 22.361 18.032 13.369 10.376 9.410 9.750 9.064 26.935 25.608 22.309 18.107 13.574 10.550 9.575 10.167 9.419 26.913 25.574 22.263 18.143 13.741 10.704 9.732 10.545 9.858 26.899 25.548 22.208 18.156 13.924 10.894 9.903 11.012 10.825 26.895 25.534 22.113 18.111 14.214 11.267 10.275 12.041 11.352 26.903 25.536 22.008 18.073 14.313 11.442 10.459 12.602 11.830 26.911 25.544 22.068 18.037 14.313 11.442 10.459 12.602 11.830 26.911 25.544 22.068 18.037 14.313 11.442 10.459 12.602 13.111 12.425 26.920 25.555 22.061 17.996 14.415 11.749 10.797 13.744 13.056 26.933 25.565 22.061 17.995 14.429 11.996 11.117 15.121	6.032	27 • 246	25.811	21.704	16.167	11.675	9 • 1.52	8.385	6.941
6.782       27.249       25.927       22.271       16.908       12.201       9.484       8.633       7.738         7.065       27.214       25.900       22.375       17.160       12.393       9.609       8.752       8.040         7.363       27.172       25.859       22.434       17.397       12.591       9.746       8.873       8.357         7.630       27.130       25.820       22.452       17.582       12.757       9.879       8.973       8.641         7.957       27.076       25.770       22.442       17.769       12.960       10.035       9.106       8.989         8.304       27.020       25.716       22.408       17.920       13.164       10.195       9.260       9.358         8.672       26.972       25.660       22.361       18.032       13.369       10.376       9.410       9.750         9.419       26.935       25.608       22.309       18.107       13.574       10.550       9.575       10.167         9.858       26.899       25.548       22.208       18.143       13.741       10.704       9.732       10.545         9.858       26.893       25.534       22.156       18.1	6.249	27.275	25.885	21.916	16.388	11.827	9.238	8.454	7. 171
7.065       27.214       25.900       22.375       17.160       12.393       9.609       8.752       8.040         7.363       27.172       25.859       22.434       17.397       12.591       9.746       8.873       8.357         7.630       27.130       25.820       22.452       17.582       12.757       9.879       8.973       8.641         7.957       27.076       25.770       22.442       17.769       12.960       10.035       9.106       8.989         8.304       27.020       25.716       22.408       17.920       13.164       10.195       9.260       9.358         8.672       26.972       25.660       22.361       18.032       13.369       10.376       9.410       9.750         9.064       26.935       25.608       22.309       18.107       13.574       10.550       9.575       10.167         9.419       26.913       25.548       22.263       18.143       13.741       10.704       9.732       10.545         9.858       26.899       25.548       22.208       18.156       13.924       10.894       9.903       11.012         10.825       26.893       25.534       22.113       1	6.510	27.274	25.927	22.119	16.548	12.015	9.357	8.536	7.449
7.065       27.214       25.900       22.375       17.160       12.393       9.609       8.752       8.040         7.363       27.172       25.859       22.434       17.397       12.591       9.746       8.873       8.357         7.630       27.130       25.820       22.452       17.582       12.757       9.879       8.973       8.641         7.957       27.076       25.770       22.442       17.769       12.960       10.035       9.106       8.989         8.304       27.020       25.716       22.408       17.920       13.164       10.195       9.260       9.358         8.672       26.972       25.660       22.361       18.032       13.369       10.376       9.410       9.750         9.064       26.935       25.608       22.309       18.107       13.574       10.550       9.575       10.167         9.419       26.913       25.548       22.263       18.143       13.741       10.704       9.732       10.545         9.858       26.899       25.548       22.208       18.156       13.924       10.894       9.903       11.012         10.825       26.893       25.531       22.113       1	6.782	27.249	25.927	22.271	16.908	12.201	9.484	8.633	7.738
7.363       27.172       25.859       22.434       17.397       12.591       9.746       8.873       8.357         7.630       27.130       25.820       22.452       17.582       12.757       9.879       8.973       8.641         7.957       27.076       25.770       22.442       17.769       12.960       10.035       9.106       8.989         8.304       27.020       25.716       22.408       17.920       13.164       10.195       9.260       9.358         8.672       26.972       25.660       22.361       18.032       13.369       10.376       9.410       9.750         9.064       26.935       25.660       22.309       18.107       13.574       10.550       9.575       10.167         9.419       26.913       25.574       22.263       18.143       13.741       10.704       9.732       10.545         9.858       26.899       25.548       22.208       18.156       13.924       10.894       9.903       11.012         10.825       26.893       25.531       22.113       18.111       14.214       11.267       10.275       12.041         11.830       26.911       25.544       22.068       <	7.065	27.214	25.900	22.375	17.160				
7.630 27.130 25.820 22.452 17.582 12.757 9.879 8.973 8.641 7.957 27.076 25.770 22.442 17.769 12.960 10.035 9.106 8.989 8.304 27.020 25.716 22.408 17.920 13.164 10.195 9.260 9.358 8.672 26.972 25.660 22.361 18.032 13.369 10.376 9.410 9.750 9.064 26.935 25.608 22.309 18.107 13.574 10.550 9.575 10.167 9.419 26.913 25.574 22.263 18.143 13.741 10.704 9.732 10.545 9.858 26.899 25.548 22.208 18.156 13.924 10.894 9.903 11.012 10.328 26.893 25.534 22.156 18.142 14.084 11.076 10.089 11.512 10.825 26.895 25.531 22.113 18.111 14.214 11.267 10.275 12.041 11.352 26.903 25.536 22.083 18.073 14.313 11.442 10.459 12.602 11.830 26.911 25.544 22.068 18.037 14.313 11.442 10.459 12.602 11.830 26.911 25.554 22.068 18.037 14.371 11.593 10.620 13.111 12.425 26.920 25.555 22.061 17.996 14.415 11.749 10.797 13.744 13.056 26.933 25.565 22.061 17.957 14.431 11.888 10.968 14.416 13.719 26.949 25.579 22.070 17.925 14.429 11.996 11.117 15.121									
7.957 27.076 25.770 22.442 17.769 12.960 10.035 9.106 8.989 8.304 27.020 25.716 22.408 17.920 13.164 10.195 9.260 9.358 8.672 26.972 25.660 22.361 18.032 13.369 10.376 9.410 9.750 9.064 26.935 25.608 22.309 18.107 13.574 10.550 9.575 10.167 9.419 26.913 25.574 22.263 18.143 13.741 10.704 9.732 10.545 9.858 26.899 25.548 22.208 18.156 13.924 10.894 9.903 11.012 10.328 26.893 25.534 22.156 18.142 14.084 11.076 10.089 11.512 10.825 26.895 25.531 22.113 18.111 14.214 11.267 10.275 12.041 11.352 26.903 25.536 22.083 18.073 14.313 11.442 10.459 12.602 11.830 26.911 25.544 22.068 18.037 14.371 11.593 10.620 13.111 12.425 26.920 25.555 22.061 17.996 14.415 11.749 10.797 13.744 13.056 26.933 25.565 22.061 17.957 14.431 11.888 10.968 14.416 13.719 26.949 25.579 22.070 17.925 14.429 11.996 11.117 15.121		-							
8.304       27.020       25.716       22.408       17.920       13.164       10.195       9.260       9.358         8.672       26.972       25.660       22.361       18.032       13.369       10.376       9.410       9.750         9.064       26.935       25.608       22.309       18.107       13.574       10.550       9.575       10.167         9.419       26.913       25.574       22.263       18.143       13.741       10.704       9.732       10.545         9.858       26.899       25.548       22.208       18.156       13.924       10.894       9.903       11.012         10.328       26.893       25.534       22.156       18.142       14.084       11.076       10.089       11.512         10.825       26.895       25.531       22.113       18.111       14.214       11.267       10.275       12.041         11.352       26.903       25.536       22.083       18.073       14.313       11.442       10.459       12.602         11.830       26.911       25.544       22.068       18.037       14.371       11.593       10.620       13.111         12.425       26.920       25.555       22.061 </td <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td>	-						-		
8.672       26.972       25.660       22.361       18.032       13.369       10.376       9.410       9.750         9.064       26.935       25.608       22.309       18.107       13.574       10.550       9.575       10.167         9.419       26.913       25.574       22.263       18.143       13.741       10.704       9.732       10.545         9.858       26.899       25.548       22.208       18.156       13.924       10.894       9.903       11.012         10.328       26.893       25.534       22.156       18.142       14.084       11.076       10.089       11.512         10.825       26.895       25.531       22.113       18.111       14.214       11.267       10.275       12.041         11.352       26.903       25.536       22.083       18.073       14.313       11.442       10.459       12.602         11.830       26.911       25.544       22.068       18.037       14.371       11.593       10.620       13.111         12.425       26.920       25.555       22.061       17.996       14.415       11.749       10.797       13.744         13.719       26.949       25.579       22.07									
9.064 26.935 25.608 22.309 18.107 13.574 10.550 9.575 10.167 9.419 26.913 25.574 22.263 18.143 13.741 10.704 9.732 10.545 9.858 26.899 25.548 22.208 18.156 13.924 10.894 9.903 11.012 10.328 26.893 25.534 22.156 18.142 14.084 11.076 10.089 11.512 10.825 26.895 25.531 22.113 18.111 14.214 11.267 10.275 12.041 11.352 26.903 25.536 22.083 18.073 14.313 11.442 10.459 12.602 11.830 26.911 25.544 22.068 18.037 14.371 11.593 10.620 13.111 12.425 26.920 25.555 22.061 17.996 14.415 11.749 10.797 13.744 13.056 26.933 25.565 22.061 17.957 14.431 11.888 10.968 14.416 13.719 26.949 25.579 22.070 17.925 14.429 11.996 11.117 15.121									
9.419       26.913       25.574       22.263       18.143       13.741       10.704       9.732       10.545         9.858       26.899       25.548       22.208       18.156       13.924       10.894       9.903       11.012         10.328       26.893       25.534       22.156       18.142       14.084       11.076       10.089       11.512         10.825       26.895       25.531       22.113       18.111       14.214       11.267       10.275       12.041         11.352       26.903       25.536       22.083       18.073       14.313       11.442       10.459       12.602         11.830       26.911       25.544       22.068       18.037       14.371       11.593       10.620       13.111         12.425       26.920       25.555       22.061       17.996       14.415       11.749       10.797       13.744         13.056       26.933       25.565       22.061       17.957       14.431       11.888       10.968       14.416         13.719       26.949       25.579       22.070       17.925       14.429       11.996       11.117       15.121			-				-		
9.858       26.899       25.548       22.208       18.156       13.924       10.894       9.903       11.012         10.328       26.893       25.534       22.156       18.142       14.084       11.076       10.089       11.512         10.825       26.895       25.531       22.113       18.111       14.214       11.267       10.275       12.041         11.352       26.903       25.536       22.083       18.073       14.313       11.442       10.459       12.602         11.830       26.911       25.544       22.068       18.037       14.371       11.593       10.620       13.111         12.425       26.920       25.555       22.061       17.996       14.415       11.749       10.797       13.744         13.056       26.933       25.565       22.061       17.957       14.431       11.888       10.968       14.416         13.719       26.949       25.579       22.070       17.925       14.429       11.996       11.117       15.121					_				
10.328       26.893       25.534       22.156       18.142       14.084       11.076       10.089       11.512         10.825       26.895       25.531       22.113       18.111       14.214       11.267       10.275       12.041         11.352       26.903       25.536       22.083       18.073       14.313       11.442       10.459       12.602         11.830       26.911       25.544       22.068       18.037       14.371       11.593       10.620       13.111         12.425       26.920       25.555       22.061       17.996       14.415       11.749       10.797       13.744         13.056       26.933       25.565       22.061       17.957       14.431       11.888       10.968       14.416         13.719       26.949       25.579       22.070       17.925       14.429       11.996       11.117       15.121									
10.825       26.895       25.531       22.113       18.111       14.214       11.267       10.275       12.041         11.352       26.903       25.536       22.083       18.073       14.313       11.442       10.459       12.602         11.830       26.911       25.544       22.068       18.037       14.371       11.593       10.620       13.111         12.425       26.920       25.555       22.061       17.996       14.415       11.749       10.797       13.744         13.056       26.933       25.565       22.061       17.957       14.431       11.888       10.968       14.416         13.719       26.949       25.579       22.070       17.925       14.429       11.996       11.117       15.121				-					
11.352     26.903     25.536     22.083     18.073     14.313     11.442     10.459     12.602       11.830     26.911     25.544     22.068     18.037     14.371     11.593     10.620     13.111       12.425     26.920     25.555     22.061     17.996     14.415     11.749     10.797     13.744       13.056     26.933     25.565     22.061     17.957     14.431     11.888     10.968     14.416       13.719     26.949     25.579     22.070     17.925     14.429     11.996     11.117     15.121									
11.830 26.911 25.544 22.068 18.037 14.371 11.593 10.620 13.111 12.425 26.920 25.555 22.061 17.996 14.415 11.749 10.797 13.744 13.056 26.933 25.565 22.061 17.957 14.431 11.888 10.968 14.416 13.719 26.949 25.579 22.070 17.925 14.429 11.996 11.117 15.121									
12.425 26.920 25.555 22.061 17.996 14.415 11.749 10.797 13.744 13.056 26.933 25.565 22.061 17.957 14.431 11.888 10.968 14.416 13.719 26.949 25.579 22.070 17.925 14.429 11.996 11.117 15.121	-								
13.056 26.933 25.565 22.061 17.957 14.431 11.888 10.968 14.416 13.719 26.949 25.579 22.070 17.925 14.429 11.996 11.117 15.121								-	
13.719 26.949 25.579 22.070 17.925 14.429 11.996 11.117 15.121									
						_			
14.420 26.962 25.591 22.079 17.899 14.414 12.075 11.242 15.866						*			
	14.420	26.962	25.591	22.079	17.899	14.414	12.075	11.242	15.866

MACH NO = 10.00 ANGLE OF ATTACK = 5.00 CONE ANGLE = 20.00 P / P FREE-STREAM: AT PLANE ANGLES L/RN 180. S/RN 0. 30. 60 . 90. 120. 150. 17.884 14.395 12.122 16.542 15.055 26.971 25.603 22.088 11.330 26.979 22.098 17.874 14.371 12.149 11.400 17.367 15.829 25.613 26.988 25.622 22.109 17.873 14.348 12.159 11.444 18.223 16.634 26.994 17.873 14.326 12.152 11.462 19.116 17.473 25.626 22.118 17.878 26.999 22.125 14.307 12.137 11.462 20.844 18.345 25.630 11.452 27.006 14.294 12.119 20.865 19.116 25.635 22.131 17.883 11.433 14.283 12.098 21.857 20.049 27.G11 25.638 22.134 17.887 21.021 27.017 25.643 22.136 17.892 14.274 12.076 11.412 22.892 22,039 27.022 25.648 22.138 17.896 14.271 12.057 11.388 23.975 23.108 27.026 25.652 22.140 17.898 14.268 12.038 11.368 25.112 27.029 25.656 22.142 17.901 14.267 11.350 26.136 24.070 12.027 17.903 14.269 25.253 27.033 22.145 11.333 27.396 25.659 12.013 26.511 27.036 25.662 22.148 17.905 14.269 12.005 11.317 28.734 27.038 27.854 11.999 25.665 22.151 17.908 14.270 11.303 30.163 27.040 25.667 29.297 22.152 17.911 14.273 11.994 11.292 31.699 17.913 14.273 27.042 11.997 30.625 25.669 22.153 11.281 33.112 34.895 22.154 14.274 11.994 32.300 27.043 25.670 17.915 11.275 34.133 27.045 25.671 22.154 17.916 14.278 11.997 11.265 36.845 27.047 22.153 17.916 14.282 12.001 11.264 38.997 36.155 25,673 38.399 27.048 25.675 22.153 17.914 14.285 12.001 11.261 41.385 14.288 12.006 40.532 27.050 22.153 17.911 11.261 43.654 25.677 43.305 27.052 22.154 17.907 14.289 12.007 11.267 46.606 25.679 14.287 49.918 46.417 27.053 25.681 22.156 17.984 12.008 11.266 49.774 27.055 17.903 14.286 12.010 11.269 53.490 25.684 22.160 11.270 57.310 53.364 27.057 25.686 22.163 17.905 14.285 12.012 56.638 27.058 22.165 17.906 14.284 12.011 11.269 60.795 25.687 60.705 27.059 11.266 25.688 22.168 17.907 14.281 12.009 65.122 65.054 27.060 25.669 22.170 17.910 14.279 12.007 11.261 63.750 27.060 14.278 12.004 11.257 74.700 69.705 25.690 22.171 17.912 74.679 27.060 25.698 22.172 17.914 14.277 12.000 11.252 79.993 11.997 11,249 79.217 27.061 25.690 22.172 17.916 14.277 84.822 14.278 84.852 27.061 25.690 22.173 17.917 11.994 11.245 90.819 90.878 27.061 25.690 22.173 17.919 14.279 11.991 11.241 97.232 27.061 97.323 25.690 22.173 17.920 14.279 11.989 11.237 104.091 27.061 104.216 25.690 22.173 17.921 14.281 11.987 11.234 111.426 1-1.986 27.061 25.690 22.173 17.921 14.282 11.231 118.118 110.504 22.173 17.921 11.986 11.228 126.428 118.313 27.061 25.690 14.283 27.061 17.922 14.284 11.986 11.225 135.315 126.664 25.691 22.173 11.223 144.820 135.596 27.061 25.690 22.173 17.922 14.285 11.986 27.051 17-922 14.286 11.987 11.221 154.985 145.148 25.690 22.173 27.061 25.690 22.173 17.922 14.286 11.987 11.220 164.258 153.862 27.061 22.173 17.922 14.287 11.988 11.218 175.774 164.683 25.690 176.256 27.061 25.690 22.173 17.923 14.287 11.989 11.217 188.089 17.923 14.288 11.989 11.216 201.260 188-633 27.061 25.690 22.173

17.923

14.288

11.990

27.061

201.869

25.690

22.173

11.215 215.346

# NSHC/HOL/TR 75-45

M.A	/CH NO =	15.00	CONE ANG	LE = 20.	00 ANGL	E OF AT	TACK =	5.00
		D /	P FREE-S	TREAM A	T PLANE	ANGLES	-	
L/RN	0.	30.	60.	90.	120.	150.	180.	SZRN
C7 1/11	•	<b>30 •</b>	00.	50 €	1200	190 •	1004	SERI
•658	53.465	51.480	46.374	40.102	34.570	30.945	29.701	1.222
.993	49.983	47.961	42.843	36.730	31.501	28.157	27.025	1.579
1.376	46.280	44.222	39,116	33.207	28.314	25.261	24.238	1.986
1.870	43.935	41.677	36.220	30.143	25.325	22.437	21.492	2.511
2.339	44.126	41.463	35.204	28.542	23.502	20.591	19.660	3.011
2.824	46.292	43.050	35.568	27.914	22.377	19.302	18.342	3.526
3.250	49.080	45.454	36.802	28.017	21.877	18.563	17.545	3.980
3.680	51.650	47.931	38.592	28.599	21.723	18.106	17.011	4.437
4.060	53.781	49.885	40.256	29.411	21.816	17.889	16.715	4.842
4.425	55.871	51.807	41.732	30.350	22.068	17.813	16.552	5.231
4.804	57.750	53.755	43.236	31.384	22.461	17.848	16.490	5.634
5.151	58.985	55.216	44.664	32.319	22.911	17.966	16.512	6.003
5.523	59.784	56.296	46.134	33.290	23.455	18.167	16.609	6.399
5.873	60.125	56.888	47.308	34.205	24.005	18.415	16.758	6.771
6.257	60.171	57.148	48.260	35.222	24.620	18.738	16.978	7.180
6.626	60.059	57.130	48 850	36.184	25.209	19.088	17.234	7.572
7.035	59.876	56.972	49.185	37.163	25.855	19.506	17.559	8.008
7.433	59.659	56.778	49.260	37.958	26.480	19.929	17.906	8.432
7.848	59.425	56.549	49.173	38.590	27.132	20.375	18.287	8.873
8.311	59.223	56.294	48.989	39.067	27.854	20.876	18.726	9-366
8.763	59.112	56.105	48.785	39.333	28.523	21.364	19.158	9-847
9.267	59.067	55.991	48.549	39.446	29.196	21.908	19.644	10.384
9.758	59.078	55.960	48:.341	39.426	29.745	22.438	20.119	10.906
10.305	59.126	55.983	48 - 174	39.322	30.219	23.018	20.654	11.488
10.836	59.183	56.936	48.091	39.188	30.545	23.55.6	21.173	12.053
11.388	59.239	56.101	48.069	39.041	30.765	24.070	21.702	12.541
12.003	59.298	56.165	48.095	38.884	30.895	24.569	22.258	13.295
12.600	59.353	56.218	48.146	38.756	30.935	24.964	22.747	13.930
13.266	59.486	56.273	48.212	38.658	30.915	25.298	23.214	14.539
13.912	59.444	56.320	48.272	38.609	30.860	25.523	23.577	15.327
14.634	59.469	56.358	48.327	38.597	30.783	25.67-7	23.875	16.094
15.335	59.483	56.379	48.372	38.613	30.704	25.749	24.066	16.841
16.118	59.489	56.389	48.414	38.648	30.620	25.765	24.183	17.674
16.880	59.488	56.389	48.446	38.689	30.551	25.736	24.221	18.485
17.674	59.485	56.384	48.466	38.731	30.500	25.680	24.203	19.330
1-8-560	59.481	56.377	48.474	38.772	30.469	25.603	24.140	20.273
17-424	59.477	56.370	48.472	38.806	30.461	25.525	24.055	21.192
20.388	59.47.2	56.363	48.463	38.836	30.469	25.442		
21.328	59.469	56.358	48.452	38.859	30.488	25.373	23.950 23.847	22.218 23.218
22.377	59.466	56.354	48.439	38.876	30.514	25.314	23.742	
23,490	59.464	56.352	48-428	38.885	30.541	25.276	23.655	24.335
24.465	59.462	56.350	48.420	38.886	30.567	25.257		25.423
25.655	59.460	56.349	48.412	38.882	30.593		23.585	26.556
26.814	59.458	56.348	48.407	38.875	30.593	25.253	23.535 23.510	27823 29.057
28.110	59.457	56.347	48.402	38.865	30.635	25.261 25.280	23.510	•
C-0 # T T-0	<b>レンササンド</b>	217 0 UT	マンチサリム	000000	Ų υ: <b>♦ ₩</b> 3 ⊅	C > 0 C O U	というりじり	30436

#### NSHC/HOL/TR 75-45

MACH NO = 15.00CONE ANGLE = 20.00 ANGLE OF ATTACK = 5 . 00 P / P FREE-STREAM AT PLANE ANGLES 0. SZRN L/RN 30. 60. 90. 120. 150. 180. 38.856 30.650 25.303 29.372 59.456 56.345 48.400 23.516 31.779 30.783 59.455 56.344 48.398 38.847 30.663 25.331 23.540 33.280 32.156 59.456 56.343 48.396 38.839 30.670 25.357 23.571 34.741 59.457 23.609 33.692 56.343 48.395 38.832 30.674 25.385 36.375 35.187 59.458 56.343 48.394 38.826 30.674 25.409 23.646 37.966 36.744 59.460 56.343 48.393 38.821 30.673 25.432 23.683 39.624 38.485 59.462 56.345 48.392 38.816 30.670 25.454 23.722 41.477 38.813 30.666 23.757 40.181 59.464 56.347 48.391 25.471 43.281 42.076 59.465 56.349 48.391 38.810 30.662 25.485 23.792 45.298 56.351 38.807 30.659 25.495 43.922 59.466 48.392 23.821 47.262 59.467 56.353 23.848 45.985 48.393 38.805 30.655 25.503 49.458 56.354 48.394 25.507 23.869 51.596 47.994 59,467 38.804 30.652 50.087 59.467 56.354 48.396 38.802 30.649 25.510 23.885 53.823 52.427 59.466 56.355 48.398 38.802 30.646 25.512 23.899 56,313 54.706 59.466 56.355 48.400 38.802 30.643 25.512 23.909 58.738 56.354 23.918 57.254 59.465 48.401 38.802 30.641 25.512 61.449 56.353 38.802 30.640 25.512 23.924 59.734 59.464 48.402 64.090 56.352 48.402 38.803 30.538 25.511 23.929 67.041 62.508 59.464 38.804 56.351 25.510 .23.934 59.463 48.402 30.638 69.915 65.209 59.463 56.350 48-402 38.805 30.637 25.509 23.938 73.129 68.229 71.169 59.462 56.350 48.401 38.806 30.637 25.508 23.941 76.258 74.233 59.462 56.349 48.401 38.806 38.637 25.507 23.944 79.518 38.806 25.506 23.947 77.658 59.463 56.349 48.400 30.637 83.163 80.993 59.463 56.349 48.399 38.806 30.638 25.505 23.949 86.713 25.504 59.463 56.349 48.398 38.806 30.639 23.951 90.681 84.722 23.953 59.464 56.349 48.397 38.806 30.640 25.504 94.545 88.353 56.349 25.503 23.954 92.413 59.464 48.396 38.805 30.641 98,865 48.396 56.350 38.804 30.642 25.503 23.956 103.072 96.366 59.465 48.396 38.803 30.643 25.502 23.957 107.455 100.485 59.465 56.351 25.502 48.396 38.802 30.644 23.958 112.355 105.089 59.465 56.351 109.573 59.466 56.352 48.396 38.801 30.644 25.502 23.960 117.127 25.502 114.586 59.466 56.352 48.396 38.800 30.645 23.961 122.461 38.799 30.645 25.502 23.962 127.656 119.468 59.466 56.353 48.397 38.798 25.502 56.353 48.397 30.645 23.963 133.464 124.925 59.466 130.240 59.467 5.6.353 48-398 38.797 30.645 25.502 23.965 139.120 25.502 136.181 59.467 56.353 48.399 38.797 30.645 23.966 145.443 141.967 25.502 56.353 48.399 38.797 30.645 23.967 151.600 59.467 147.996 59.467 56.354 48-400 38.796 30.645 25.502 23.968 158.015 154.735 59.467 56.354 48.400 38.796 3.0.545 25.502 23.970 165.187 161.298 59.467 56.354 48.400 38.796 30.645 25.501 23.971 172.172 59.467 56.354 38.796 25.501 23.972 179.980 168.636 48.401 30.645 38.796 23.972 187.584 175.781 59.467 56.354 48-401 30.645 25.501 59.467 48.401 38.796 30.646 25.500 23.973 196.085 183.769 56.354 48.402 3.0.646 38.796 25.499 23.974 204.363 191.549 59.467 56.354 25-499 23.974 213.618 59.467 56.354 48.402 38.796 30.646 200.246

## HSHC/HOL/TR 75-45

MACH NO = 20.00 CONE ANGLE = 20.00 ANGLE OF ATTACK = 5.00

		P /	P FREE-S	TREAM A	T PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150.	180.	S/RN
•658	94.297	90.780	81.736	70.630	60.837	54.425	52.226	1.222
1.018	87.335	83.764	74.742	63.990	54.812	48.956	46.974	1.605
1.433	80.331	76.678	67.641	57.246	48.698	43.398	41.629	2.047
1.926	76.621	72.561	62.806	52.037	43.565	38.522	36.878	2.571
2.421	77.538	72.640	61.229	49.241	40.295	35.182	33.556	3.098
2.894	81.836	75.882	62.174	48.326	38.453	33.029	31.345	3.601
3.335	87.072	80.543	64.726	48.654	37.601	31.715	29.919	4.071
3.749	91,400	84.699		49.772	37.384	30.960	29:029	4.511
4.141	95.526	88.381	70.945	51.348	37.591	30.573	28.492	4.928 5.326
4.515	99.476	92.113	73.641	53.112	38.089	30.447	28.202	5.712
	102.592	95.490	76.347	54.876	38.788	30.514	28.096	6.091
	104.669	98.058	79.119	56.576	39.631	30.733 31.079	28.135 28.296	6.471
	105.822	99.740	81.703	58.263	40.575	31.536	28.568	6.855
	106.230	100.634	83.829	60.024 61.878	41.586 42.636	32.093	28.942	7.248
	106.154		85.374 86.336	63.744	43.718	32.737	29,412	7.655
	105.862		86.765	65.482	44.847	33.452	29.970	8.077
	105.451	99.899		66.951	46.047	34.225	30.604	8.516
	104.471	99.372	86.487	68.069	47.325	35.044	31.300	8.975
	104.143	98.886	-	68.816	48.649	35.911	32.047	9.454
	103.979	98.563		69.211	49.955	36.831	32.841	9.954
	103.948	98.417	-	69.302	51.157	37.812	33.688	10.475
	104.016			69.175	52.181	38.851	34.598	11.017
	104.130	98.500		68.923	52.982	39.922	35.574	11.581
	104.252	98.634			53.553	40.984	36.604	12.167
	104.371	98.770		68.266	53.909	41.988	37.657	12.776
	104.492	98.893		67.941	54.076	42.880	38.691	13.409
	104.606	99.009		67.685	54.094	43.619	39.653	14.067
	104.695	99.117		67.527	54.008	44.187	49.495	14.751
	104.756	99.204		6.7:•464	53.860	44.583	41.179	15.463
	104.792	99.259		67.475	53.677	44.820	41.687	16.205
	104.810	99.286	85.035	67.538	53.480	44.918	42.020	16,977
	104.813	99.294	85.114	67.628	53.294	44.906	42.191	17.781
	104.807	99.287	85.168	67.726	53.145	44.812	42.222	18.620
17.828	104.798	99.273	85.193	67.818	53.050	44.663	42.144	19.494
18.684	104.786	99.257	85.195	<u>67</u> .899	53.008	44.483	41.987	20.405
19.577	104.774	99.241	85.182	67.971	53.010	44.289	41.776	21.355
20.509	104.766	99.226		68.031	53.043	44.104	41.536	22.346
21.430	104.761	99.215		68.077	53.095	43.946	41.288	23.380
22.493	104.758	99.209		68.104	53.156	43.830	41.056	24.458
23.549		99.208		68.113	53.217	43,760	40.862	25.582
	104.752			68.108	53.274	43.731	40.720	26.754
	104.748			68.094	53.327	43.736	40.630	27.977
	104.746			68.075	53.374	43.766	40.591	29.252
28.248	104.744	99.204	85.041	6.8 • 054	53.414	43.813	4°.594	30.582

ANGLE OF ATTACK = 5.00MACH NO = 20.99CONE ANGLE = 20.00 P / P FREE-STREAM AT PLANE ANGLES 180. S/RN 60. 90. 120. 150. L/RN 0. 30. 53.445 43.868 40.629 31.969 29.551 104.742 99.202 85.038 68.035 43.927 40.686 33.416 85.037 68.017 53.466 30.911 104.742 99.199 34.925 40.758 85.036 68.001 53.477 43.985 32.329 104.742 99.197 36.499 53.479 44.042 40.836 99.196 85.035 67.988 33.808 104.744 67,977 44.096 40.917 38.141 85.033 53.476 35.350 104.747 99.196 85.031 67.968 53.470 44.144 40.998 39.853 36.959 104.750 99.197 67.962 53.462 44.184 41.077 41.638 99.199 85.029 38.637 104.754 67.957 53.454 44.216 41.150 43.501 99.203 85.028 40.387 104.758 53.445 44.240 41.216 45.443 67.953 42.212 104.760 99.207 85.028 41.272 47.469 85.028 67.949 53.437 44.256 44.116 184.762 99.211 41.317 49.582 85.030 67.946 53.430 44.266 46.102 104.763 99.214 41.353 51.786 67.944 44.271 48.173 104.763 99.217 85.032 53.423 41.381 54.085 50.333 104.763 99.218 85.035 67.942 53.418 44.0274 85.039 67.940 53.413 44.274 41.401 56.483 99.219 52.586 104.762 85.042 67.940 53.409 44.273 41.416 58.984 54.936 104.761 99.218 61.592 44.271 41.427 57.388 104.759 99.217 85.045 67.940 53.406 67.941 53.404 44.268 41.436 64.313 99.216 85.047 59.945 104.758 67.942 44.266 41.442 67.152 85.048 53.402 99.214 62.612 104.756 41.448 70.112 67.943 53.401 44.264 85.394 104.755 99.212 85.048 99.210 67.945 53.400 44.262 41.452 73.201 68.296 104.754 85.047 99,208 85.046 67.947 53.399 44.260 41.457 76.422 71.323 104.754 67.948 53.400 44.259 41.462 79.781 74.480 104.754 99.207 85.044 85.042 67.948 53.400 44.258 41.467 83.2,6 77.773 104.754 99.206 41.472 86.941 99.206 85.040 67.948 53.401 44.257 81.208 104.755 67.948 44.256 41.477 90.754 85.038 53.403 84.791 104.756 99.206 67.947 44.255 41.481 94.731 99.207 85.037 53.405 88.528 104.757 44.255 41.484 98.879 99.208 85.036 67.946 53.406 92.426 104.757 85.035 67.944 53.408 44.254 41.488 103.206 96.492 104.758 99.209 44.254 41.490 107.719 100.733 104.759 99.210 85.034 67.942 53.410 105.157 104.760 99.211 85.035 67--940 53.411 44.253 41.493 112.427 85.035 67.938 53.412 44.253 41.495 117.337 109.771 104.760 99.212 44.253 41.497 122.458 85.036 67.936 53.413 114.583 104.760 99.213 99.214 85.037 44.254 41.499 127.801 119.603 104.761 67.934 53.414 41.501 133.373 99.214 44.254 85.038 57.933 53.414 124.839 104.761 44.254 41.503 139.185 99.214 85.039 67.931 53.414 130.301 104.762 9.9.215 44.254 41.505 145.248 135.998 104.762 85.040 67.930 53.414 67.930 53.414 44.254 41.507 151.571 141.940 104.762 99.215 85.041 148.138 104.762 99.215 85.042 67.929 53.414 44.254 41.509 158.167 67.929 53.414 44.254 41.511 165.047 154.604 104.763 99.215 85.043 67.929 53.414 44.253 41.514 172.224 99.215 85.044 161.347 104.763 53.414 67.929 44.253 41.515 179.709 99.215 85.044 168.381 104.763 67.929 85.045 44.252 41.517 187.517 53.414 175.718 104.763 99.216 44.251 85.045 67.930 53.414 41.518 195.661 183.371 104.763 99.216

67-930

67.930

85.045

85.046

191.354 104.763

200.249 104.763

99.216

99.216

53.414

53.415

44.250

44.249

41.520 204.156

41.521 213.622

MACH NO = 25.00 CONE ANGLE = 20.00 ANGLE OF ATTACK = 5.00

		P /	P FREE-S	STOFAM	AT PLANE	ANGLES		
L/RN	Û.	30.	60.	90.		150.	180.	SZRN
CZKN	•	30 •	00•	90 •	120 •	1904	1004	37 KII
658	145 788	141.300	127 192	100 870	94.605	84.609	81.183	1.222
		130.187		99.391		75.99:2	72.909	1.603
		119.014		88.787		67.266	64.517	
	118.779		97,298	80.575				2.044
						59.605	57.056	2.566
		112.673		75.936		54.064	51.547	3.124
		117.925		74.577		50.752	48.143	3.621
		125.207		75.113		48.717	45.935	4.085
		131.981		77.004		47.476	44.471	4.547
		137.749		79.475		46.885	43.646	4.956
		143.630		82.198		46.685	43.192	5.347
		149.186		85.073		46.791	43.010	5.749
		153.048		87.673		47.126	43.065	6.121
		155.536		90.290		47.654	43.305	6.493
		156.806		93.057		48.350	45.713	6.870
		157.087		96.181		49.258	44.318	7.282
		156.737		99.120		50.244	45.037	7.681
		156.132				51.335	45.889	8.096
		155.298				52.592	46.921	8.557
		154.411				53.847	47.982	9.009
		153.646				55.181	49.119	9.481
		153.146				56.712	50.418	10.006
		152.963				58.262	51.733	10.519
9.896	161.796	152.995	131.456	107.425	80.996	59.910	53.162	11.053
		153.167				61.611	54.709	11.607
10.995	162.203	153.408	130,925	10-6.403	83.143	63.412	56.459	12.222
11.558	162.403	153.629	130.984	105.818	83.657	64.997	58.141	12.821
12.142	162.605	153.831	131.163	105.281	83.880	66.397	59.789	13.443
12.790	162.795	154.038	131.407	104.856	83.869	67.619	61.415	14.133
13.423	162.925	154.211	131.632	104.631	83.697	68.486	62.735	14.806
14.080	163.011	154.339	131.833	104.556	83,429	69.086	63.800	15.506
14.811	163.055	154.417	132.026	104.605	83.079	69.453	64.630	16.283
15.524	163.085	154.450	132.184	104.730	82.733	69.576	65.124	17.042
16.267	163.085	154.454	132.306	104.891	82.419	69.527	65.364	17.833
17.094	163.073	154.439	132.383	105.066	82.168	69.335	65.382	18.712
		154.414		105.218		69.064	65.223	19.572
		154.386				68.741	64.937	20.468
		154.358				68.400	64.563	21.402
		154.332				68.062	64.111	22.441
		154.315				67.803	63.680	23.458
		154.308				67.619	63.289	24.517
		154.308				67.507	62.951	25.695
		154.309				67.473	62.726	26.849
		154.310				67.492	62.591	28.050
		154.309				67-554	62.537	29.388
		154.306				67.638	62.555	30.696
		, , , , , ,						

ANGLE OF ATTACK = 5.00

CONE ANGLE = 20.00

MACH - NO = 25.00

P / P FREE-STREAM AT PLANE ANGLES L/RN 0. 30. SIRN 60. 90. 120. 150. 180. 29.637 162.968 154.302 132.144 105.545 82.755 67.733 62.622 32.060 30.972 162.967 154.299 132.144 105.517 82.783 67.833 62.723 33.481 32.458 162.968 154.295 132.144 105.490 82.796 67.940 35,063 62.853 33.913 162.970 154.293 132.143 105.469 82.796 68-036 62.986 36.610 35.428 162.975 154.291 132.140 105.453 82.789 68.125 63.124 38.223 37.115 162.981 154.293 132.137 105.440 68.208 63.269 40.018 82.776 38.765 162.987 154.297 132.133 105.432 82.762 68.270 63.399 41.774 40.484 162.992 154.302 132.131 105.426 82.747 68.318 63.518 43.604 42.398 162.997 154.309 132.130 105.420 82.732 68.353 63.627 45.641 44.271 162.999 154.316 132.130 105.415 47.634 82.719 68.375 63.711 46.222 163.001 154.322 132.132 105.411 82.706 68.387 63.778 49.710 48.256 163.001 154.326 132.136 105.407 82.696 68.393 63.831 51.875 50.520 163.000 154.328 132.141 105.404 82.687 68.394 63.872 54.284 52.735 162.998 154.329 132.147 105.402 82.681 68.392 63.901 56,641 55.043 162.996 154.328 132.152 105,401 82.676 58.388 63.921 59.098 57.613 162.994 154.326 132.157 105.401 82.672 68.383 63.936 61.832 60.127 162.991 154.323 132.160 105.402 82.669 68.378 63.946 64,508 62.748 162.989 154.320 132.162 105.403 82.666 68.374 63.953 67.296 65.665 162.987 154.317 132.162 105.406 82.664 68.370 63.959 70.400 68.518 162.986 154.313 132.161 105.408 63.965 73.437 82.663 68.368 71.493 162.985 154.311 132.159 105.410 82.662 68.367 63.972 76.603 74.804 162.986 154.309 132.156 105.412 63.980 82.663 68.365 80.126 78.043 162.986 154.307 132.153 105.413 63.989 82.664 68.364 83.573 81.419 162.987 154.307 132.150 105.414 63.997 82.665 68.363 87.166 84.938 162.988 154.308 132.146 185.413 82.667 68.362 64.005 90.910 88.854 162.990 154.309 132.144 105.412 82.670 68.361 64.013 95.078 92.686 162.991 154.310 132.141 105.409 64.020 99.156 82.673 68.360 96.680 162.992 154.312 132.140 105.407 82.675 68.360 64.025 103.406 101.126 162.994 154.314 132.140 105.403 68.359 64.030 108.137 82.678 68.359 105.475 162.994 154.316 132.140 105.400 64.034 112.766 32.680 110.008 162.995 154.318 132.141 105.397 82.682 64.037 117.590 68.359 115.054 162.996 154.319 132.142 105.393 82.684 68.359 64.040 122.960 119.992 162.997 154.320 132.144 105.390 82.685 68.359 64.043 128.214 64.046 133.689 125.137 162.997 154.321 132.146 105.388 68.359 82.685 130.499 162.998 154.321 132.148 105.386 64.048 139.396 82.685 68.360 136.469 162.998 154.322 132.150 105.385 68.360 64.052 145.749 82.685 142.309 162.998 154.322 132.151 105.384 82.685 68.360 64.055 151.964 148.396 162.999 154.322 132.153 105.383 64.058 158.441 82.684 68.360 64.062 165.652 155.172 162.999 154.322 132.154 105.383 82.684 68.360 161.802 162.999 154.322 132.155 105.383 64.065 172.707 82.684 68.359 168.711 162.999 154.323 132.156 105.383 82.684 68.358 64.068 180.060 176.403 162.999 154.323 132.156 105.383 68.357 64.070 188.245 82.684 183.928 162.999 154.323 132.157 105.383 82.684 68.356 64.073 196.254 191.771 163.000 154.323 132.157 105.384 82.685 68.354 64.075 204.600 200.502 163.000 154.323 132.158 105.384 82.686 68.353 64.076 213.891

MACH NO = 30.00 CONE ANGLE = 20.00 ANGLE OF ATTACK = 5.00

		P /	P FREE-	STREAM	AT PLANE	ANGLES	3	
L/RN	ŋ.	30.	60.	90.	120.	150.	180.	S/RN
		, ,		300	2000	2,00	2000	07.414
.658	210.951	203.056	182.757	157.838	135.877	124.503	116.580	1.222
		186,933			122.135			1.602
		170.760			108.260		92,492	2.042
		160.948					81.119	2.598
		161,442					73.754	3.120
		169.619					68.557	3.646
		180.098			82.589		65.437	4.106
		189.712				67.672	63.356	4.564
		198.042				66.826	62.174	4.968
		207.096			83.798	66.527	61.486	5.380
		214.532			85.351			
		220.357				66.669	61.241	5.752
		223.786			87.336	67.175	61.317	6.145
		225.480				67.929	61.658	6.512
					91.605	68.922	62.236	6.885
		225.780				7-0 - 214	63.095	7.293
		225.228			96.408	71.614	64.115	7.689
		224.247				73.269	65.408	8.127
		223.057				74.942	66.781	8.556
		221.649			104.959	76.846	68.384	9.034
		220.557				7-8755	70.000	9.502
					111.180		71.851	10.023
		219.634				83.203	73.736	10.531
					118.305	85.756	75.942	11.095
		219.997				38.232	78.194	11.645
		220.358				9.0-845	80.745	12.255
		220.682				93.137	83.196	12.848
		220.984				95.155	85.594	13.465
		221.293				96-913	87.957	14.148
		221.544				9.8 • 15 8	89.869	14.814
		221.730				99.063	91.501	15.553
		221.827				99.544	92.617	16.274
		221.370				99.719	93.369	17.076
		221.872				99.626	93.696	17.859
17.110	234.286	221.846	190.088	150-696	117.642	99.322	93.702	18.729
17,909	234.255	221.810	190.119	150.922	117.446	98.901	93.450	19.580
18,793	234.218	221.765	190.102	151.138	117.377	98.367	92.974	20.527
19.668	234.190	221.721	190.055	151,317	117.417	97-845	92.392	21.452
		221.682				97.337	91.695	22.482
		221.659				96.955	91.042	23,488
		221.651				96.689	90.455	24.537
		221.653				95.538	89.956	25.703
		221.656				96.485	89.627	26.844
		221.658				96.524		28.112
					118.409			29.353
		221.653				96.752		30.733
	•		2 · - <del>*</del>			· · ·		

#### NSHC/HOL/TR 75-45

PLANE

ANGLE OF ATTACK = 5.00

ANGLES

CONE ANGLE = 20.00

P / P FREE-STREAM AT

84.968 234.161 221.654 189.722 151.203 118.433

88.841 234.164 221.655 189.718 151.200 118.437 92.629 234.165 221.658 189.715 151.197 118.441

96.844 234.167 221.661 189.713 151.193 118.445

100.966 234.169 221.663 189.712 151.188 118.448

105.552 234.170 221.666 189.712 151.183 118.452

110.037 234.171 221.668 189.714 151.178 118.455 115.027 234.172 221.670 189.716 151.174 118.457

119.907 234.173 221.672 189.718 151.169 118.458

124.990 234.174 221.673 189.721 151.166 118.459

130.647 234.175 221.673 189.724 151.163 118.459

136.178 234.175 221.674 189.727 151.161 118.459

142.333 234.176 221.674 189.729 151.159 118.458

148.352 234.176 221.675 189.731 151.159 118.458

155.049 234.177 221.675 189.733 151.158 118.457

161.598 234.177 221.675 189.734 151.158 118.457

MACH NO = 30.00

120. 150. 180. SZRN 90. L/RN 0. 30. **60.** 29.658 234.133 221.648 189.718 151.390 118.576 96.898 89.497 32.083 31.069 234.131 221.642 189.720 151.345 118.615 33.585 97.060 89.662 89.847 35.053 97.211 32.449 234.132 221.637 189.720 151.308 118.629 36.687 33.984 234.135 221.632 189.719 151.277 118.626 97.366 90.062 97.498 90.270 38.284 35.486 234.142 221.630 189.715 151.255 118.613 97.618 90.488 40.062 37.156 234.151 221.632 189.710 151.239 118.593 41.800 38.789 234.159 221.637 189.705 151.228 118.571 90.681 97.707 40.490 234.167 221.646 189.701 151.220 118.549 97.773 90.854 43.610 42.383 234.174 221.656 189.698 151.213 118.526 97.822 91.011 45.624 97.851 91.130 47.594 44.233 234.178 221.666 189.698 151.207 118.505 46.292 234.180 221.675 189.701 151.200 118.486 97.867 91.230 49.785 97.873 91.302 51.928 48.306 234.180 221.681 189.706 151.195 118.472 50.546 234.179 221.685 189.714 151.190 118.460 97.873 91.359 54.312 52.737 234.176 221.686 189.722 151.187 118.452 97.868 91.398 56.643 55.175 234.173 221.684 189.730 151.185 118.445 97.860 91.426 59.238 57.559 234.169 221.682 189.737 151.185 118.440 97.852 91.444 61.774 64.597 60.212 234.166 221.677 189.742 151.186 118.436 97.843 91.455 62.806 234.162 221.672 189.745 151.188 118.432 91.463 67.358 97.837 65.692 234.159 221.667 189.746 151.191 118.429 91.470 70.430 97.832 91.477 73.433 68.515 234.158 221.662 189.744 151.195 118.427 97.830 91.487 76.563 71.455 234.157 221.658 189.742 151.198 118.427 97.828 97.827 91.500 80.044 74.727 234.157 221.655 189.737 151.201 118.427 77.926 234.158 221.653 189.732 151.203 118.428 97.826 91.513 83.449 97.825 87.238 81.486 234.160 221.653 189.727 151.203 118.431 91.527

168.885 234.177 221.675 189.736 151.158 118.457 97.819 91.630 180.246 176.012 234.177 221.676 189.737 151.159 118.457 97.817 91.634 187.829 183.941 234.177 221.676 189.738 151.159 118.457 97.815 91.637 196.268 191.696 234.177 221.676 189.738 151.159 118.458 97.813 91.640 204.520 200.324 234.178 221.676 189.739 151.160 118.459 97.811 91.642 213.702

97.824

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97.820

91.539

91.551

91.561

91.570 103.581

91.577 107.967

91.583 112.848

91.587 117.620

91.592 122.931

91.595 128.124

91.599 133.533

91.603 139.553

91.607 145.439

91.611 151.989 91.616 158.394

91.621 165.521

91.625 172.491

90.942

95.065

99.096

MAC	н ио =	3.50.	CONE ANGL	E = 5.0	O ANGL	E OF ATT	ACK = 10	.00
		P /	P FREE-ST	REAM AT	PLANE	ANGLES		
L/RN	0.	30.	60•	90•	120.		180.	SZRN
•683	4.380	4.114	3.454	2.696		1.708	1.586	1.249
•754	3.635		2.829		1.665	1.355	1.255	1.323
.816	3.076	2.870	2.365	1.804	1.363	1.102	1.018	1.386
	2.396	2.224		1.353	1.008	.808	.744	1.500
1.062	2.347	2,173	1.756	1.310	• 97.7	.788	.728	1.633
1.217	2.334	2.157	1.735	1.287	•955	•770	.712	1.789
1.397	2.318	2.141	1.719	1.277	• 95 0	•768	•711	1.970
1.605	2.284	2.109	1.694	1.263	•950	• 77-6	.723	_
1.843	2.237	2,• 066	1.657	1.240	• 944	•787	•740	
2.111	2.181	2.014	1.613	1.209	•934	• 8 0 0		2.686
2.411	2.130	1.955	1.559	1.175	•921	.814		2.988
2.744	2.085	1.907	1.508	1.140	•905	.821		3.322
3.240	2.033	1.854	1.455	1.092	.881	.824		
3.650	2.006	1.822	1.419	1.059	.859			4.232
4.094	1.986	1.797	1.386	1.028				
4.570	1.973	1.779	1.359	1.001	• 8 <u>1</u> -6	• 82·7		5 • 154
5.078	1.967	1.767	1.337	• 977				5.665
5.618	1.966	17-60	1.318			_	• 899 204	6.207
6.189	1.968	1.757	1.303		• 7-7-0		•904	6.780
6.791	1.974		1.290	_	•75 8	• 828 • 828		7.385
7.424	1.982	-	1.280		• <del>7</del> 48	• 83 <u>1</u>		8.020 8.686
8 •:087	1.992		1.272	-	•7 <u>3</u> 9			9.381
8 •= 780	2.003		1.266		•7 <u>3</u> 0	• 839	• 926	10.355
9.751	2.018	1.780	1.259		•721	• 84 <u>.5</u>	•942	11.121
10.513		1.787	1.256	• 855 04.7	•715	. 85:0	• 942	11.916
11.305	2.040		1.254	•:8 <u>4</u> 7	•709	• 85'4 • 85'8	.951	12.741
12.127	2.050	1.802	1.252	• 840 • 34	•7:05	• 852	•953	13.596
12.979		1.809	1.251	• 834 • 830	•700 •696	• 8ú	• 955	14.482
13.861	2.068	1.816	1.251	• 8 <u>2</u> 9	•693	.867	•957	15.398
14.774	2.076	1.823	1.250	•824 •820	•690	• 86.9	•958	16.345
15.718	2.082	1.828	1.250	• 81.7	•687	•871		17.325
16.694	2.088	1834	1.251 1.251					18.336
1-7701				•812	•682	• 87-4	• 96-3	19.380
18.741	2.098	1.842	1.252	• 0 <u>12</u>	•679	• 87·5	.964	20.825
20.180	2.103	1.847	1.252	• 00 5 • 80 8	•678	•876	• 965	21.948
21.299	2.106	1.850	1.253	• 807	•676	.877	• 966	23.107
22.454	2.109	1.853	1.253	• 80 6	•675	• 87 <del>-</del> 8	•966	24.301
23.644	2.411	1.856	1.254	• 805	•67.4	•878	• 967	25.533
24.871	2.113	1.858	1.254 1.255	• 805 •-805	•674	•879	• 967	26.804
26.137	2.115	1.860 1.861	1.256	• 804	.674	.879	• 96-7	28.114
27.442	2.116	1.862	1.256	• 80 4	•67-3	.879	• 966	29.464
28:4787	2.117	1.864	1.257	• 804	•673	•-88 D	•966	30.858
30.175	2.117	1.865	1-258	•8.94 •-8.94	.673	•-88 <u>-</u> 0	•966	32.296
31.608	2.118	1.865	1.259	.804	•673	• 88 <u>-</u> 0	• 965	33.780
33.086	2.118	1.003	エ・・・こうつ	• 007	-510	- UO.U	- 50-5	

MAC	H NO =	3.50	ONE ANGLE	= 5.00	ANGL	E OF ATTA	CK = 1	0.00
		D / F	FREE-STR	FAM AT	PLANE	ANGLES		
L/RN	0 •	30 •	60 •	90•	120.	150 •	180 .	S/RN
LIKN	U •	., 0 •	00•	354				
35.132	2.117	1.866	1.260	. 804	.674	.880	.965	35.834
36.726	2.117	1.867	1.261	.804	.674	.88-1	-965	37.433
38 • 372	2.117	1.868	1.262	804	.674	.881	.964	39.086
40.074	2.116	1.368	1.263	. 804	•675	.881	.964	40.794
41.833	2.116	1.868	1.264	.805	.675	.882	-964	42.560
43.651	2-115	1.869	1.265	.805	•675	.882	-964	44.385
45.532	2-115	1.869	1.266	.805	•676	.882	-963	46.273
47.477	2.115	1.869	1.267	. 805	.677	. 88.3	•963	48.225
49.488	2.114	1.869	1.269	.805	•677	<ul><li>883</li></ul>	• 963	50.244
51.568	2.114	1.868	1.270	.805	•678	.884	-962	52.332
53.719	2.114	1.868	1.272	.805	.678	-884	•962	54.492
56.702	2.114	1.868	1.274	<b>-</b> 806	.679	.885	•962	57.486
59.829	2.113	1.867	1.276	.806	•679	.886	-962	59.822
61.435	2.113	1.866	1.278	.806	.680	.886	•962	62.237
63.923	2.113	1.866	1.281	.806	.680	<b>.</b> 88⁻7	•962	64.735
66 • 496	2.113	1.865	1.283	-806	.681	. 888	•962	67.318
69-157	2.113	1.864	1.286	.805	•681	.888	•962	69.988
71.907	2.112	1.863	1.288	.805	•682	.889	<b>-</b> 962	7-2-749
74.751	2.112	1.863	1.291	.805	.682	.890	- 962	75.604
77.691	2.112	1.862	1.293	.805	.683	.890	-961	78.555
80:•.731	2.111	1.861	1.296	.804	•683	.891	961	81.606
83 •:872	2.111	1.861	1.299	.804	•68 <u>4</u>	.891	<b>-961</b>	84.0750
88 227	2.111	1.860	1.302	.803	.684	•892	.961	89.131
91.620	2.112	1.859	1.304	.802	•685	•893	961	92.538
95.128	2.112	1.859	1.306	.801	•685	.893	• 961	96.059
98753	2.112	1.858	1.308	.800	•686	.894	•961	99.698
162.500	2.112	1.858	1.310	.799	.686	.894		103.458
106-371	2.113	1.858	1.312	• 799	•687	.894		107.345
110.373	2.113		1.314	<b>-,</b> 798	.687	.895		111.361
114.508	2.113		1.315	<b>→ 797</b>	•688	•895		115.512
118 • 781	2.114	1.857	1.316	• 796	·688	. 896		119.802
123.197	2.114	1.857	1.317	.795	•689·	•896		124.234
127.760	2.115	1.857	1.318	• 794	•689-	•896		128.816
134 - 084	2.115	1.857	1.318	.793	•690 <sup>-</sup>	•897		135.163
139.012	2.115	1.857	1.319	• 793	•690°	• 8 <u>.</u> 97		140.110
144.105	2.115	1.857	1.319	. 792	•691	. 8.97		145.223
149.369	2.116	1.857	1.319	• 792	•691	•8 <u>9</u> 7		150.507
154.810	2.116	1.857	1.319	.791	• 692	• 898		155.969
160 434	2.116	1.858	1.318	• 791	•693	.898	• 959	161.614
166 • 247	2.116	1.858	1.318	.790	•693	• 8.9 8		167.449
172.256	2.117	1.858	1.317	• 790	.694	.898		173.481
178.468	2.117	1.859	1.317	•79C	.694	• 899		179.717
184.890	2.117	1.859	1.316	·790	•695	.899		186.163
191.529	2.117	1.859	1.315	•790	•695	.899		192.828
200.732	2.117	1.860	1.314	•790	•696-	• 899	• 958	202.066
7004100	_,,							

L/PN	MAC	н ио =	5.00	CONE ANGL	E = 5.00	) ANGL	E OF ATT	ACK' = 10	.00
L/PN			- 4	cT	DEAM AT	DLANE	ANG! FS		
.708		_			·- <u>-</u>			180.	SZRN
. 788	F\BN	0-•	30 •	60.	90•	150 •	1000	1000	<b>.</b>
. 788			c 06.5	E 770	1. 360	3.27:N	2.626	2.417	1.274
.780									
1.005	_								
1.005 1.023 3.866 3.551 2.806 2.031 1.467 1.158 1.063 1.795 1.424 3.749 3.440 2.714 1.970 1.432 1.136 1.047 2.312 2.013 3.401 3.113 2.439 1.777 1.332 1.111 1.050 2.568 2.435 3.205 2.910 2.256 1.557 1.209 1.078 3.305 2.949 2.646 2.002 1.443 1.130 1.048 1.055 3.855 3.728 2.847 2.490 1.824 1.281 4.335 2.817 2.490 1.824 1.281 4.335 2.817 2.490 1.824 1.281 4.822 2.791 2.452 1.770 1.226 4.953 4.942 1.771 1.163 4.822 2.791 2.452 1.771 1.163 4.812 2.835 2.442 1.771 1.163 4.867 6.821 2.836 2.444 1.650 1.081 1.827 8.866 2.916 2.947 1.618 1.022 7.70 861 967 8.018 8.264 2.916 2.947 1.618 1.022 7.70 861 967 8.018 8.264 2.916 2.947 1.618 1.022 7.70 861 967 8.801 1.467 1.198 1.005 1.011 1.022 1.050 1.041 4.919 1.074 1.081 1.091 1.081 1.0				-					
1.424 3.749 3.440 2.714 1.970 1.432 1.136 1.045 2.912 1.738 3.557 3.261 2.564 1.868 1.383 1.125 1.047 2.558 2.435 3.205 2.910 2.256 1.652 1.263 1.097 1.055 3.011 2.787 3.080 2.782 2.135 1.557 1.209 1.078 1.065 3.365 3.305 2.949 2.666 2.002 1.443 1.130 1.048 1.055 3.885 3.728 2.879 2.566 1.916 1.369 1.071 1.022 1.050 4.309 4.335 2.817 2.490 1.824 1.281 9.99 9.866 1.014 4.919 4.822 2.791 2.452 1.770 1.226 .953 .960 1.030 5.408 5.551 2.786 2.443 1.681 1.124 .667 .999 9.976 6.647 6.821 2.8079 2.414 1.650 1.081 1.827 .888 .982 7.414 7.423 2.835 2.447 1.618 1.022 .770 .861 .967 8.863 8.962 7.414 1.650 1.081 .827 8.88 .982 7.414 1.650 1.081 8.890 8.982 8.9									
1.738 3.4501 3.261 2.564 1.668 1.383 1.125 1.047 2.312 2.013 3.401 3.113 2.439 1.777 1.332 1.111 1.050 2.588 2.435 3.205 2.910 2.256 1.652 1.263 1.097 1.065 3.011 2.787 3.080 2.782 2.135 1.557 1.209 1.078 1.063 3.365 3.305 2.949 2.6646 2.002 1.443 1.130 1.048 1.055 3.885 3.728 2.879 2.566 1.916 1.369 1.071 1.022 1.050 4.309 4.335 2.817 2.490 1.824 1.281 .999 .986 1.041 4.919 4.822 2.791 2.452 1.770 1.226 953 .960 1.030 5.408 5.511 2.780 2.422 1.713 1.163 .991 .929 1.012 6.099 6.056 2.786 2.413 1.681 1.124 .867 .909 .997 6.647 7.423 2.835 2.424 1.653 1.053 .801 .827 .888 .982 7.414 7.423 2.835 2.424 1.653 1.053 .801 .876 .964 .967 8.863 8.264 2.879 2.447 1.618 1.022 .770 .861 .967 8.863 8.264 2.879 2.447 1.612 1.001 .749 .852 .963 .9527 9.553 2.968 2.505 1.607 .978 .724 .843 .959 10.437 10.583 3.008 2.554 1.611 .963 .706 .836 .997 11.190 11.607 3.061 2.576 1.617 .946 .684 .829 .955 13.016 13.484 3.143 2.648 1.635 .924 .668 .824 .955 13.016 13.484 3.143 2.648 1.635 .924 .668 .824 .955 13.016 13.484 3.143 2.648 1.635 .924 .668 .824 .955 13.016 13.484 3.143 2.648 1.663 .907 .666 .803 .965 16.934 17.476 3.259 2.760 1.668 .907 .666 .803 .965 16.934 17.476 3.259 2.778 1.668 .907 .666 .803 .965 16.934 17.476 3.259 2.778 1.668 .907 .666 .803 .965 16.934 17.476 3.259 2.778 1.668 .907 .666 .803 .965 16.934 17.476 3.259 2.778 1.668 .907 .666 .803 .965 16.934 17.476 3.259 2.766 1.668 .907 .666 .803 .965 16.934 17.476 3.259 2.766 1.668 .907 .666 .803 .965 16.934 17.476 3.259 2.766 1.668 .907 .666 .803 .965 16.934 17.476 3.259 2.766 1.668 .907 .666 .803 .965 16.934 17.476 3.259 2.766 1.667 .908 .909 .552 .767 .976 22.432 20.830 3.330 2.831 1.767 .915 .555 .766 .976 22.432 23.081 3.324 2.888 1.720 .904 .552 .755 .975 .975 22.432 23.081 3.328 2.888 1.797 .913 .535 .766 .976 28.820 24.079 3.327 2.888 1.779 .923 .524 .747 .973 32.478 33.425 3.328 2.888 1.797 .923 .524 .747 .973 32.478 33.425 3.328 2.888 1.797 .923 .524 .747 .973 32.478 33.425 3.328 2.888 1.805 .926 .522 .745 .973 34.120									
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6.056									6.099
6.821 2.889 2.414 1.650 1.081 82.7 888 .982 7.414 7.423 2.835 2.424 1.653 1.053 .801 87.6 97.4 8.018 8.264 2.879 2.447 1.618 1.022 .770 .861 .967 8.863 8.264 2.879 2.447 1.618 1.022 .770 .861 .967 8.863 8.264 2.915 2.470 1.612 1.001 .749 .852 .963 9.527 9.852 2.968 2.505 1.609 .978 .724 .843 .959 10.457 10.583 3.008 2.534 1.611 .963 .706 .836 .957 11.190 11.607 3.061 2.576 1.617 .946 .684 .829 .955 12.219 12.401 3.098 2.607 1.623 .935 .668 .824 .955 13.016 13.484 3.143 2.648 1.635 .924 .648 .818 .957 14.102 14.313 3.174 2.676 1.6644 .917 .634 .813 .959 14.935 15.442 3.209 2.710 1.658 .911 .617 .807 .962 16.068 16.304 3.233 2.733 1.668 .907 .606 .803 .965 16.934 17.476 3.259 2.760 1.683 .904 .592 .797 .969 18.110 19.586 3.294 2.799 1.707 .903 .572 .787 .973 20.228 19.586 3.294 2.799 1.707 .903 .572 .787 .973 20.228 20.830 3.308 2.818 1.720 .904 .562 .781 .975 21.476 21.782 3.316 2.829 1.729 .905 .556 .777 .976 22.432 23.081 3.324 2.844 1.741 .907 .549 .772 .977 23.736 25.446 3.329 2.864 1.760 .911 .539 .764 .977 26.110 26.500 3.330 2.871 1.749 .908 .544 .768 .977 24.738 25.446 3.329 2.888 1.779 .908 .544 .768 .977 24.738 27.946 3.329 2.888 1.779 .908 .544 .768 .977 26.110 26.500 3.330 2.8871 1.767 .913 .535 .756 .976 .976 27.168 31.789 3.328 2.888 1.791 .921 .526 .750 .976 27.168 31.789 3.328 2.888 1.791 .921 .526 .750 .976 27.168 31.789 3.328 2.888 1.791 .921 .526 .750 .976 27.168 33.425 3.328 2.888 1.797 .923 .524 .747 .973 32.478 33.425 3.328 2.888 1.797 .923 .524 .747 .973 32.478 33.425 3.328 2.888 1.797 .923 .524 .747 .973 32.478 33.425 3.328 2.888 1.797 .923 .524 .747 .973 32.478 33.425 3.328 2.888 1.797 .923 .524 .747 .973 32.478 33.425 3.328 2.888 1.797 .923 .524 .747 .973 32.478 33.425 3.328 2.888 1.797 .923 .524 .747 .973 32.478 33.425 3.328 2.888 1.805 .926 .522 .745 .973 34.120 .971 37.140	_								6.647
7.423 2.835 2.424 1.653 1.053 .801 .876 .974 8.018 8.264 2.879 2.447 1.618 1.022 .770 .861 .967 8.863 8.926 2.916 2.470 1.612 1.001 .749 .852 .963 9.527 9.852 2.968 2.505 1.609 .978 .724 .843 .959 10.457 10.583 3.008 2.534 1.611 .963 .706 .836 .957 11.190 11.607 3.061 2.576 1.617 .946 .684 .829 .955 12.219 12.401 3.098 2.607 1.623 .935 .668 .824 .955 13.016 13.484 3.143 2.648 1.635 .924 .648 .818 .957 14.102 14.313 3.174 2.676 1.644 .917 .634 .813 .959 14.935 15.442 3.209 2.710 1.658 .911 .6617 .807 .962 16.068 15.304 3.233 2.733 1.668 .907 .606 .803 .965 16.934 17.476 3.259 2.760 1.683 .904 .592 .797 .969 18.110 19.586 3.294 2.778 1.693 .903 .583 .793 .971 19.008 19.586 3.294 2.799 1.707 .903 .572 .787 .973 20.228 20.830 3.308 2.818 1.720 .904 .562 .781 .975 21.476 21.782 3.316 2.829 1.729 .905 .556 .777 .976 22.432 23.081 3.324 2.844 1.741 .907 .549 .772 .977 .976 22.432 23.081 3.324 2.844 1.741 .907 .549 .772 .977 .976 22.432 24.079 3.3327 2.853 1.749 .908 .554 .768 .977 24.738 25.446 3.329 2.878 1.779 .908 .554 .768 .977 24.738 25.446 3.329 2.878 1.779 .908 .554 .768 .977 24.738 25.446 3.329 2.886 1.760 .911 .539 .764 .977 26.110 26.550 3.330 2.871 1.767 .913 .535 .764 .977 26.110 27.946 3.328 2.886 1.777 .916 .532 .756 .976 28.620 29.064 3.328 2.888 1.783 .918 .529 .753 .975 29.742 30.600 3.328 2.886 1.791 .921 .526 .750 .974 31.285 31.285 33.425 3.328 2.888 1.805 .926 .522 .745 .973 34.120 33.449 3.327 2.885 1.820 .930 .520 .740 .971 37.140 .971 37.140 .997 33.449 .997 33.449 .997 33.449 .998 .524 .747 .973 32.478 33.425 3.328 2.888 1.805 .926 .522 .745 .973 34.120 .971 37.140 .998 33.425 3.328 2.888 1.805 .926 .522 .745 .973 34.120 .971 37.140 .998 33.425 3.328 2.888 1.805 .926 .522 .745 .973 34.120 .971 37.140 .998 33.448 3.327 2.885 1.820 .930 .520 .7740 .971 37.140 .997 33.449 .997 33.449 .997 33.449 .997 33.449 .997 33.449 .997 33.449 .997 33.449 .997 33.449 .997 33.449 .998 .521 .743 .997 33.449 .997 33.449 .997 33.449 .997 33.449 .997 33.449 .997 33.449 .997 33.449 .997 33.449 .997 33.449 .997 33.4					-				7.414
8.264							-		8.018
8.926									8.863
9.852 2.968 2.505 1.609 978 .724 843 .959 10.457 10.583 3.008 2.534 1.611 .963 .706 .836 .957 11.190 11.607 3.061 2.576 1.617 .946 .684 .829 .955 12.219 12.401 3.098 2.607 1.623 .935 .668 .824 .955 13.016 13.484 3.143 2.648 1.635 .924 .648 .818 .957 14.102 14.313 3.174 2.676 1.644 .917 .634 .813 .959 14.935 15.442 3.209 2.710 1.658 .911 .617 .807 .962 16.068 16.304 3.233 2.733 1.668 .907 .606 .803 .965 16.934 17.476 3.259 2.760 1.683 .904 .592 .797 .969 18.110 18.371 3.276 2.778 1.693 .903 .583 .793 .971 19.008 19.586 3.294 2.799 1.707 .903 .572 .787 .973 20.228 20.830 3.308 2.818 1.720 .904 .562 .781 .975 21.476 21.782 3.316 2.829 1.729 .905 .556 .777 .976 22.432 23.081 3.324 2.844 1.741 .907 .549 .772 .977 23.736 24.079 3.327 2.853 1.749 .908 .544 .768 .977 24.738 25.446 3.329 2.864 1.760 .911 .539 .764 .977 26.110 26.500 3.330 2.871 1.767 .916 .532 .756 .976 27.168 27.946 3.329 2.864 1.776 .913 .535 .760 .976 27.168 30.600 3.328 2.888 1.791 .921 .526 .750 .974 .973 32.478 30.600 3.328 2.888 1.797 .923 .524 .747 .973 32.478 30.600 3.328 2.888 1.797 .923 .524 .747 .973 32.478 33.425 3.328 2.888 1.805 .926 .522 .745 .973 34.120 36.434 3.327 2.885 1.820 .936 .520 .740 .971 37.140 378.495									
9.052       2.933       2.534       1.611       .963       .706       .836       .957       11.190         11.607       3.061       2.576       1.617       .946       .684       .829       .955       12.219         12.401       3.098       2.607       1.623       .935       .668       .824       .955       13.016         13.484       3.143       2.648       1.635       .924       .648       .818       .957       14.102         14.313       3.174       2.676       1.644       .917       .634       .813       .959       14.935         15.442       3.209       2.710       1.658       .911       .617       .807       .962       16.068         16.304       3.233       2.733       1.668       .907       .606       .803       .965       16.934         17.476       3.259       2.760       1.683       .904       .592       .797       .969       18.110         18.371       3.276       2.778       1.693       .903       .583       .793       .971       19.008         19.586       3.294       2.799       1.707       .903       .572       .787       .973       <							-	• 95 9	10.457
11.607 3.061 2.576 1.617 .946 .684 .829 .955 12.219 12.401 3.098 2.607 1.623 .935 .668 .824 .955 13.016 13.484 3.143 2.648 1.635 .924 .648 .818 .957 14.102 14.313 3.174 2.676 1.644 .917 .634 .813 .959 14.935 15.442 3.209 2.710 1.658 .911 .617 .807 .962 16.068 16.304 3.233 2.733 1.668 .907 .606 .803 .965 16.934 17.476 3.259 2.760 1.683 .904 .592 .797 .969 18.110 18.371 3.276 2.778 1.693 .903 .583 .793 .971 19.008 19.586 3.294 2.799 1.707 .903 .572 .787 .973 20.228 20.830 3.308 2.818 1.720 .904 .562 .781 .975 21.476 21.782 3.316 2.829 1.729 .905 .556 .777 .976 22.432 23.081 3.324 2.844 1.741 .907 .549 .772 .977 23.736 24.079 3.327 2.853 1.749 .908 .544 .768 .977 24.738 25.446 3.329 2.864 1.760 .911 .539 .764 .977 24.738 25.446 3.329 2.864 1.760 .911 .539 .764 .977 24.738 25.446 3.329 2.864 1.760 .911 .539 .764 .977 24.738 25.446 3.329 2.864 1.760 .911 .539 .764 .977 24.738 25.446 3.329 2.864 1.760 .911 .539 .764 .977 27.168 27.946 3.329 2.864 1.777 .916 .532 .756 .976 27.168 27.946 3.328 2.888 1.783 .918 .529 .753 .975 29.742 29.064 3.328 2.888 1.783 .918 .529 .753 .975 29.742 30.600 3.328 2.888 1.783 .918 .529 .753 .975 29.742 31.789 3.328 2.888 1.805 .926 .522 .745 .973 32.478 33.425 3.328 2.888 1.805 .926 .522 .745 .973 32.478 33.425 3.328 2.888 1.805 .926 .522 .745 .973 32.478 34.691 3.328 2.888 1.820 .930 .520 .740 .971 37.140 36.434 3.327 2.8855 1.820 .930 .520 .740 .971 37.140				-				• 957	11.190
12.401       3.098       2.607       1.623       .935       .668       .824       .955       13.016         13.484       3.143       2.648       1.635       .924       .648       .818       .957       14.102         14.313       3.174       2.676       1.644       .917       .634       .813       .959       14.935         15.442       3.209       2.710       1.658       .911       .617       .807       .962       16.068         16.304       3.233       2.733       1.668       .907       .606       .803       .965       16.934         17.476       3.259       2.760       1.683       .904       .592       .797       .969       18.110         18.371       3.276       2.778       1.693       .903       .583       .793       .971       19.008         19.586       3.294       2.799       1.707       .903       .572       .787       .973       20.228         20.830       3.308       2.818       1.720       .904       .562       .781       .975       21.476         21.782       3.316       2.829       1.729       .905       .556       .777       .976								. 955	12.219
13.484       3.143       2.648       1.635       .924       .648       .818       .957       14.102         14.313       3.174       2.676       1.644       .917       .634       .813       .959       14.935         15.442       3.209       2.710       1.658       .911       .617       .807       .962       16.068         16.304       3.233       2.733       1.668       .907       .606       .803       .965       16.934         17.476       3.259       2.760       1.683       .904       .592       .797       .969       18.110         18.371       3.276       2.778       1.693       .903       .583       .793       .971       19.008         19.586       3.294       2.799       1.707       .903       .572       .787       .973       20.228         20.830       3.308       2.818       1.720       .904       .562       .781       .975       .21.476         21.782       3.316       2.829       1.729       .905       .556       .777       .976       .22.432         23.081       3.324       2.844       1.741       .907       .549       .772       .977								• 955	13.016
14.313       3.174       2.676       1.644       .917       .634       .813       .959       14.935         15.442       3.209       2.710       1.658       .911       .617       .807       .962       16.068         16.304       3.233       2.733       1.668       .907       .606       .803       .965       16.934         17.476       3.259       2.760       1.683       .904       .592       .797       .969       18.110         18.371       3.276       2.778       1.693       .903       .583       .793       .971       19.008         19.586       3.294       2.799       1.707       .903       .572       .787       .973       20.228         20.830       3.308       2.818       1.720       .904       .562       .781       .975       .21.476         21.782       3.316       2.829       1.729       .905       .556       .777       .976       .22.432         23.081       3.324       2.844       1.741       .907       .549       .772       .977       .23.736         24.079       3.327       2.853       1.760       .911       .539       .764       .977								. 957	
15.442 3.209 2.710 1.658 911 617 807 962 16.068 16.304 3.233 2.733 1.668 907 606 803 965 16.934 17.476 3.259 2.760 1.683 904 592 797 969 18.110 18.371 3.276 2.778 1.693 903 583 793 971 19.008 19.586 3.294 2.799 1.707 903 572 787 973 20.228 20.830 3.308 2.818 1.720 904 562 781 975 21.476 21.782 3.316 2.829 1.729 905 556 777 976 22.432 23.081 3.324 2.844 1.741 907 549 772 977 23.736 24.079 3.327 2.853 1.749 908 544 768 977 24.738 25.446 3.329 2.864 1.760 911 539 764 977 26.110 26.500 3.330 2.871 1.767 913 535 760 976 27.168 27.946 3.329 2.878 1.777 916 532 756 976 28.620 29.064 3.328 2.883 1.783 918 529 753 975 29.742 30.600 3.328 2.886 1.791 921 526 750 974 31.285 31.789 3.328 2.888 1.805 926 522 745 973 32.478 33.425 3.328 2.888 1.805 926 522 745 973 34.120 34.691 3.328 2.888 1.805 926 522 745 973 34.120 37.040 3.327 2.885 1.820 930 520 740 971 37.140								• 959	
16.304 3.233 2.733 1.668 90.7 60.6 80.3 96.5 16.934 17.476 3.259 2.760 1.683 90.4 59.2 79.7 96.9 18.110 18.371 3.276 2.778 1.693 90.3 58.3 79.3 97.1 19.00.8 19.586 3.294 2.799 1.707 90.3 57.2 78.7 97.3 20.228 20.830 3.308 2.818 1.720 90.4 56.2 78.1 97.5 21.476 21.782 3.316 2.829 1.729 90.5 55.6 77.7 97.6 22.432 23.081 3.324 2.844 1.741 90.7 54.9 77.2 97.7 23.736 24.079 3.327 2.853 1.749 90.8 54.4 76.8 97.7 24.738 25.446 3.329 2.864 1.760 91.1 53.9 76.4 97.7 26.110 26.500 3.330 2.871 1.767 91.3 53.5 76.0 97.6 27.168 27.946 3.329 2.878 1.777 91.6 53.2 75.6 97.6 28.620 29.064 3.328 2.888 1.783 91.8 52.9 75.3 97.5 29.742 30.600 3.328 2.886 1.791 92.1 52.6 75.0 97.4 31.285 31.789 3.328 2.888 1.797 92.3 52.4 74.7 97.3 32.478 33.425 3.328 2.888 1.805 92.6 52.2 74.5 97.3 34.120 34.691 3.328 2.888 1.805 92.6 52.2 74.5 97.3 34.120 34.691 3.328 2.888 1.805 92.6 52.2 74.5 97.3 34.120 34.691 3.328 2.888 1.805 92.6 52.2 74.5 97.3 34.120 34.691 3.328 2.888 1.805 92.6 52.2 74.5 97.3 34.120 34.691 3.328 2.888 1.805 92.6 52.2 74.5 97.3 35.391 36.434 3.327 2.885 1.820 93.0 52.0 74.0 97.1 37.140 97.1 37.140				-	-			• 962	
17.476       3.259       2.760       1.683       .904       .592       .797       .969       18.110         18.371       3.276       2.778       1.693       .903       .583       .793       .971       19.008         19.586       3.294       2.799       1.707       .903       .572       .787       .973       20.228         20.830       3.308       2.818       1.720       .904       .562       .781       .975       21.476         21.782       3.316       2.829       1.729       .905       .556       .777       .976       22.432         23.081       3.324       2.844       1.741       .907       .549       .772       .977       23.736         24.079       3.327       2.853       1.749       .908       .544       .768       .977       24.738         25.446       3.329       2.864       1.760       .911       .539       .764       .977       26.110         26.500       3.330       2.871       1.767       .913       .535       .760       .976       27.168         27.946       3.328       2.883       1.777       .916       .532       .756       .975	-						• 80.3	• 965	
18.371       3.276       2.778       1.693       .903       .583       .793       .971       19.008         19.586       3.294       2.799       1.707       .903       .572       .787       .973       20.228         20.830       3.308       2.818       1.720       .904       .562       .781       .975       21.476         21.782       3.316       2.829       1.729       .905       .556       .777       .976       22.432         23.081       3.324       2.844       1.741       .907       .549       .772       .977       23.736         24.079       3.327       2.853       1.749       .908       .544       .768       .977       24.738         25.446       3.329       2.864       1.760       .911       .539       .764       .977       26.110         26.500       3.330       2.871       1.767       .913       .535       .760       .976       27.168         27.946       3.329       2.883       1.777       .916       .532       .756       .975       .975       29.742         30.600       3.328       2.886       1.791       .921       .526       .750		_					•797	• 969	
19.586       3.294       2.799       1.707       .903       .572       .787       .973       20.228         20.830       3.308       2.818       1.720       .904       .562       .781       .975       21.476         21.782       3.316       2.829       1.729       .905       .556       .777       .976       22.432         23.081       3.324       2.844       1.741       .907       .549       .772       .977       23.736         24.079       3.327       2.853       1.749       .908       .544       .768       .977       24.738         25.446       3.329       2.864       1.760       .911       .539       .764       .977       .976       .27.168         27.946       3.329       2.878       1.777       .916       .532       .756       .976       .28.620         29.064       3.328       2.883       1.783       .918       .529       .753       .975       .9974       .31.285         31.789       3.328       2.888       1.791       .921       .526       .750       .974       .31.285         33.425       3.328       2.888       1.805       .926       .522		7.				-	•793	• 97.1	
20.830       3.308       2.818       1.720       .904       .562       .781       .975       21.476         21.782       3.316       2.829       1.729       .905       .556       .777       .976       22.432         23.081       3.324       2.844       1.741       .907       .549       .772       .977       23.736         24.079       3.327       2.853       1.749       .908       .544       .768       .977       24.738         25.446       3.329       2.864       1.760       .911       .539       .764       .977       .26.110         26.500       3.330       2.871       1.767       .913       .535       .760       .976       .27.168         27.946       3.329       2.878       1.777       .916       .532       .756       .976       .28.620         29.064       3.328       2.883       1.783       .918       .529       .753       .975       .9975       .29.742         30.600       3.328       2.888       1.797       .923       .524       .747       .973       .32.478         31.789       3.328       2.888       1.805       .926       .522       .745						•572	• 7·8·7		
21.782       3.316       2.829       1.729       .905       .556       .777       .976       22.432         23.081       3.324       2.844       1.741       .907       .549       .772       .977       23.736         24.079       3.327       2.853       1.749       .908       .544       .768       .977       24.738         25.446       3.329       2.864       1.760       .911       .539       .760       .976       .27.168         26.500       3.330       2.871       1.767       .913       .535       .760       .976       .27.168         27.946       3.329       2.878       1.777       .916       .532       .756       .976       .28.620         29.064       3.328       2.883       1.783       .918       .529       .753       .975       .9742         30.600       3.328       2.886       1.791       .921       .526       .750       .974       .31.285         31.789       3.328       2.888       1.805       .926       .522       .745       .973       .34.120         34.691       3.328       2.885       1.811       .928       .521       .743       .972				_		•562	.781	• 975	
23.081       3.324       2.844       1.741       .907       .549       .772       .977       23.736         24.079       3.327       2.853       1.749       .908       .544       .768       .977       24.738         25.446       3.329       2.864       1.760       .911       .539       .760       .976       .27.168         26.500       3.330       2.871       1.767       .913       .535       .760       .976       .27.168         27.946       3.329       2.878       1.777       .916       .532       .756       .976       .28.620         29.064       3.328       2.883       1.783       .918       .529       .753       .975       .977       .29.742         30.600       3.328       2.886       1.791       .921       .526       .750       .974       .31.285         31.789       3.328       2.888       1.805       .926       .522       .745       .973       .34.120         33.425       3.328       2.887       1.811       .928       .521       .743       .972       .35.391         36.434       3.327       2.885       1.820       .930       .520       .740			2.829		• 905	•556	•777	• 97₌6	
24.079       3.327       2.853       1.749       .908       .544       .768       .977       24.738         25.446       3.329       2.864       1.760       .911       .539       .764       .977       26.110         26.500       3.330       2.871       1.767       .913       .535       .750       .976       27.168         27.946       3.329       2.878       1.777       .916       .532       .756       .976       28.620         29.064       3.328       2.883       1.783       .918       .529       .753       .975       29.742         30.600       3.328       2.886       1.791       .921       .526       .750       .974       31.285         31.789       3.328       2.888       1.797       .923       .524       .747       .973       32.478         33.425       3.328       2.888       1.805       .926       .522       .745       .973       34.120         34.691       3.328       2.887       1.811       .928       .521       .743       .972       35.391         36.434       3.327       2.885       1.820       .930       .520       .740       .971						•549		• 97 <u>-</u> 7	
25.446       3.329       2.864       1.760       .911       .539       .764       .977       .26.110         26.500       3.330       2.871       1.767       .913       .535       .760       .976       .27.168         27.946       3.329       2.878       1.777       .916       .532       .756       .976       .28.620         29.064       3.328       2.883       1.783       .918       .529       .753       .975       .29.742         30.600       3.328       2.886       1.791       .921       .526       .750       .974       .31.285         31.789       3.328       2.888       1.797       .923       .524       .747       .973       .32.478         33.425       3.328       2.888       1.805       .926       .522       .745       .973       .34.120         34.691       3.328       2.887       1.811       .928       .521       .743       .972       .35.391         36.434       3.327       2.885       1.820       .930       .520       .740       .971       .37.440			-			•544	• 768	• 977	
26.500       3.330       2.871       1.767       .913       .535       .760       .976       27.168         27.946       3.329       2.878       1.777       .916       .532       .756       .976       28.620         29.064       3.328       2.883       1.783       .918       .529       .753       .975       29.742         30.600       3.328       2.886       1.791       .921       .526       .750       .974       31.285         31.789       3.328       2.888       1.797       .923       .524       .747       .973       32.478         33.425       3.328       2.888       1.805       .926       .522       .745       .973       34.120         34.691       3.328       2.887       1.811       .928       .521       .743       .972       35.391         36.434       3.327       2.885       1.820       .930       .520       .740       .971       .37.495						•539	•764	• 977	
27.946     3.329     2.878     1.777     .916     .532     .756     .976     28.620       29.064     3.328     2.883     1.783     .918     .529     .753     .975     29.742       30.600     3.328     2.886     1.791     .921     .526     .750     .974     31.285       31.789     3.328     2.888     1.797     .923     .524     .747     .973     32.478       33.425     3.328     2.888     1.805     .926     .522     .745     .973     34.120       34.691     3.328     2.887     1.811     .928     .521     .743     .972     35.391       36.434     3.327     2.885     1.820     .930     .520     .740     .971     .37.495						•535	•760		
29.064     3.328     2.883     1.783     .918     .529     .753     .975     29.742       30.600     3.328     2.886     1.791     .921     .526     .750     .974     31.285       31.789     3.328     2.888     1.797     .923     .524     .747     .973     32.478       33.425     3.328     2.888     1.805     .926     .522     .745     .973     34.120       34.691     3.328     2.887     1.811     .928     .521     .743     .972     35.391       36.434     3.327     2.885     1.820     .930     .520     .740     .971     37.140       37.0     37.0     37.0     .970     38.495						•532	• 756		
30.600     3.328     2.886     1.791     .921     .526     .750     .974     31.285       31.789     3.328     2.888     1.797     .923     .524     .747     .973     32.478       33.425     3.328     2.888     1.805     .926     .522     .745     .973     34.120       34.691     3.328     2.887     1.811     .928     .521     .743     .972     35.391       36.434     3.327     2.885     1.820     .930     .520     .740     .971     37.140       970     38.495	_					•529			
31.789     3.328     2.888     1.797     .923     .524     .747     .973     32.478       33.425     3.328     2.888     1.805     .926     .522     .745     .973     34.120       34.691     3.328     2.887     1.811     .928     .521     .743     .972     35.391       36.434     3.327     2.885     1.820     .930     .520     .740     .971     37.140       36.434     3.327     2.885     1.820     .930     .520     .740     .971     .38.495						•526	-		
33.425 3.328 2.888 1.805 .926 .522 .745 .973 34.120 34.691 3.328 2.887 1.811 .928 .521 .743 .972 35.391 36.434 3.327 2.885 1.820 .930 .520 .740 .971 37.140						•524			
34.691 3.328 2.887 1.811 .928 .521 .743 .972 35.391 36.434 3.327 2.885 1.820 .930 .520 .740 .971 37.140		-				-522			
36.434 3.327 2.885 1.820 .930 .520 .740 .971 37.140					• 928	•521			
070 770 070 78.495	-				• 930	_			_ /
				1.827	• 933	•519	• 7:39	•970	38.495

MAÇ	= 00 H	5.00	CONF ANGLE	= 5.00	ANGL	E OF ATT	ICK = 1	.0 • 0.0
		- 4			D4 4115	43161.50		
			P FREE-STE			ANGLES	4 0 0	S/RN
L/RN	0 •	30 •	60•	90•	120.	150.	180.	SZKN
39.642	3.324	2.878	1.837	• 935	•519	•737	.970	40.361
41.082	3.322	2.875		. 937	-518	.736	96 9	41.806
43.064	3.319	2.869		• 940	.518	•735	969	43-796
44.599	3.316	2.865		942	.518	.734	.968	45.337
46.713	3.313	2.860	1.879	. 944	.518	.734	• 968	47.458
48.349	3.311	2.856	1.888	945	.518	.733	.968	49.101
50.601	3.308	2.850	1.900	• 946	-518	.733	968	51.361
52.344	3.306	2.847	1.908	947	•518	.733	968	53.111
54.743	3.304	2.842	1.919	947	•518	.733	• 968	55.519
56.599	3.303	2.838	1.925	94.7	-518	•733		57.383
59.154	3.302	2.834		. 347	•518	.733	.968	
61-131	3.301	2.831		J46	•518	.733	. 968	
63.851	3.301	2.828	1.943	. 945	.518	.733	•968	64.662
65.956	3.301			. 945	.518	•734	• 968	
68.853	3.301			. 944	-518	.734	.968	69.683
71.856		2.821	1.950	. 944	•518	•735	.968	72:697
74.180		2.820	1.950	. 944	•518	•735	.968	75.030
77.378		2.819	1.949	• 944	•519	.736	• 968	78.240
79.853		2.819	1.948	. 944	•519	•737	.968	80.725
83.259		2.819		• 945	.520	.738	• 96 8	84.144
85.895		2.819		• 946	•520	.739	• 968	86:-791
89.524		2.819		• 947	•521	<b>.</b> 740	• 968	90.433
92.333	3.308	2.820	1.937	• 948	•522	.741	• 96 9	
96.199	3,310	2 • 8 2 1	1.932	• 949	•523	.742	• 969	97.133
99.192	3.311	2.823	1.928	• 951	•523	•743		100.138
103.312	3.313	2.825	1.923	• 952	•524	.744		104.274
106.502	3.314	2.826	1918	• 954	•525	•745		107.476
110.894	3.316	2.829	1-912	• 956	•526	.747		111.885
114296	3.317	2.831	1.907	• 958	•526	.748		<b>115</b> :•300
118,979	3.319	2 • 8 3 3	1-980	•960	•527	•749		120.001
122,606	3•320=	2.835	1.895	• 962	•528	•749		123.642
127.601	3.322	2.838	1-887	• 964	•528	•75 O-		128.656
131,470	3 • 323	2.841	1.882	• 966	•529	•751		132.540
136.799	3.325		1.874	• 969	•529	•752		137.4888
140.926	3.326	2 • 846	1.868	• 97-1	<b>-</b> 530	•752		142.032
146.611	3.328	2.849	1860	• 973	•530	•753		147.739
151.016	3 • 329	2.851	1 • 854	• 975	•531	•753		152.160
157-083	3.331	2 • 854	1-846	• 978	•531	•754		158.250
161.784	3 • 332	2.856	1 840	• 980	•531	.754	_	162.969
168.260	3.334	2.859	1.832	• 983	•532	• 755		169,469
173-278	3.335	2.861	1.826	• 985	•532	• 755		174.507
180,191	3.336	2.864	1.818	• 988	•532	• 756		181.447
185:549	3 • 337	2+865	1 + 813	+990	•532	• 75 6·		186.825
192.932	3.338	2.868	1.805	• 992	•532	-• 75 <b>7</b>	-	194.236
200.597	3.339	2.869	1-797	• 995	• 533	•757	• 968	201.931

MA	CH NO =	10.00	CONE ANG	LE = 5.	00 ANGL	E OF ATT	ACK = 1	0 • <b>0</b> 2
				<b></b>				
				-	T PLANE	ANGLES		
L/RN	0.	30-•	60.•	90•	120.	150.	180.	S/RN
.725	25.572	23.711	19.197	14.228	10.396	8.181	7.474	1.292
.823	18.742				7.173		5.064	1.393
• 964	13.964				5.069			1.535
1.230					4.538			1.802
	11.687				4.221			2.140
1.889	10.748	9.772	7.528	5.367	3.927	3.202	2.995	2.463
2.356	9.655	8.711	6.629	4.734	3.545	3.019	2.906	2.933
2.893	8.753	7.804	5.824	4.130	3.167	2.835	2.802	3.471
3.492	8.079	7.115	5.189	3.623	2.783	2.626	2.685	43072
4.141	7.619		4.689		2.451	2.494	2.545	4.724
4.689	7.381	6.330	4.382	2.924	2.230	2.241	2.420	5.274
5.400	7.214	€.089	4.085		2.001	2.069	2.271	5.988
6.130	7.165	5.949	3.868	2.435	1.812	1.926	2.143	6.721
6.873	7.208	5.889	3.711	2.266	1.660	1.806	2.035	7.467
7.623	7.323	5.891	3.599	2.130	1.536	1.702	1.938	8.219
8.226	7.455	5.930	3.599 3.536 3.483 3.453	2 • 0 4:0 1 • 9 4:7	1.452	1.631		8.824
8.980	7.659	6.017	3.483	1.947	1.363	1.554	1.787	9.582
9.735	7.896	6.139	3.453	1.870	1.285	1.488	1.718	10.339
19.488	8.159	6.288	3.443	1.806	1.215	1.433	1.661	11.095
11.089	8.386	6.423	3.447	1.762	1.165	1.393	1.623	11.698
11.838	8.684	6.611	3.464	1.715	1.107	1.350	1.585	12.450
		6.815	3.493	1.67:6	1.054	1.311	1.556	13.206
	9.292	7.034	3.534	1.544	1.005	1.27.6		13.948
					• 960			14.696
14.673	9.793				. 926			15.296
15.426					.885			1.6.352
16.189			3.766					16.818
16.967			3.844					17.599
17.757			3.928					18.402
18.428			3.999					19.366
19.288			4.093					19.929
20.193		8.846	4.190					20.837
21.152	10.556			1.579	.667	• 995	1.422	21.8.0:0
	-		4.374			.971		
23.051	10.449	9.067	4.47:8	1.606	•627	• 940	1.409	23.707
24.220	10.406	9.047	4.584	1.625	-609	.908	1.400	24.880
25.474	10.383	8.979	4.693	1.647	•594	•87 <del>-</del> 7	1.390	26.138
26.777	10.378	8.888	4.804	1.671	•582	.847	1.37=6	27.446
27.853	10.380	8.808	4.894	1.691	• 575	.824	1.364	28.527
29.242	10.383	8.707	5.005	1.717	• 56.9	•7 <u>9</u> 8	1.346	29.921
30.680	10.383	8.615	5.111	1.744	• 565	•773	1.325	31.364
32.166	10.381	8.535	5.204	1.770	• 563	.751	1.303	32.856
33-699	10.379	8.469	5.280	1.795	• 563	.734	1.280	34.395
34.960	10.377	8-425	5.327	1.813	.564	• <del>7</del> 16	1.262	35.660
36.580	10.370	8.378	5.368	1.834	• 565	•698	1.239	37.287

# NSHC/HOL/TR 75-45

M	ACH NO =	10.00	CONE AND	SLE = 5.0	0 ANGL	E OF ATT	ACK =	10.00
		P /	P FREE-S	STREAM AT	DI ANG	ANCI SO		
L/RN	0	30.	60.	90.		ANGLES		
		<b>50 </b>	000	30 •	120.	150•	180.	SZRN
38.253	10.357	8.340	5.392	1.852	.567	•683	4 247	70 000
39.980	10.336	8.310	5.431	1-868	•570	•668	1.217	
41.403	10.316	8.290	5.400	1:.882	.572	•658	1.196 1.179	40.700
43.237	10.289	8.271	5.388	1.899	.575	•646	1.160	
45.135	10.263	8.257	5, 367	1, 919	.580	•635	1.142	43.969 45.874
47.099	10.241	8.249	5,338	1.942	.585	•625	1.124	47.846
49.132	10.223	8.245	5.304	1.967	.592	-616	1.108	49.887
50.811	10.212	8.245	5.274	1.988	• 598	.610	1.096	51.572
52.976	10.203	8.249	5.232	2.015	.606	.603	1.082	53.745
55.217	10.199	8.256	5.188	2.042	.615	•598	1.069	55.995
57.537	10.201	8.266	5.141	2.067	.624	• 593	1.057	58.324
59.937	10.208	8.279	5.094	2.091	.634	.589	1.046	60.733
61.917	10.218	8.291	5.055	2.108	•642	.586	1.038	62.720
64.466	10.234	8.308	5.007	2.128	.651	•583	1.029	65.280
67.103	10.253	8.328	4.958	2.146	•659	.581	1.020	67.926
59.827	10-274	8.350	4.908	2.162	.668	•579	1.013	70.561
72.073	10.291	8.369	4.869	2.173	.674	.578	1.007	72.915
74.964	10.313	8.395	4.819	2.185	.681	•576	1.000	75.817
77.952	10.336	8.422	4.770	2 • 194	.687	.574	. 994	78.817
81.042	18.358	8.450	4.720	2.201	•692	•573	.988	81.919
84.237 86.872	16.378	8.479	4.671	2 • 207	•697	.572	.982	85.126
90.268	18.393	8.502	4.632	2209	.700	.571	.978	87.771
93.784	10.411	8.531	4.584	2 • 211	.703	•569	.973	91.180
97.425	10.426 10.439	8.559	4.536	2.212	.705	.568	•968	94.710
101.197	10.451	8.587	4.489	2.211	•707	•567	• 964	98.364
104.313	10.451	8.613	4.444	2.209	.708	• 565		102.151
108.336	10.456	8.632 8.655	4.408	2.207	.709	•564		105.278
112.509	10.47-3	8.675	4.366	2.203	.709	•563	•952	109.317
116.837	10.477	8.694	4.325 4.286	2.199	.709	•562		113.506
120.417	10.480	8.706	4.256	2.194	.709	•561		117.850
125.043	10.483	8.720	4.230	2.190	.708	•560	• 941	121.444
129.846	10.484	8.732	4.188	2.184 2.179	•708	•560±		126.088
134.833	19.484	8.741	4.158	2.173	.707	•559		130.910
140.011	10.483	8.748	4.130	2.167	•707	•559		135.915
144.297	10.482	8.751	4.110	2.163	.706 .705	•559		141.113
149.840	10.480	8.754	4.088	2.157	•705 •705	•559		145.415
155.598	10.477	8.755	4.068	2-152	.704	•559		150.980
161.578	10.473	8.754	4.052	2.146	•704 •783	•559 •560		156.759
167.791	10.469	8.751	4.039	2.141	.702	•568-		162.763
172.934	10.465	8.748	4.031	2.137	.701	•560	- J21	168.999
179.586	10.459	8.742	4.023	2.132	.700	•561	• 74U . 04 0	174.161 180.840
186.497	10.453	8.736	4.019	2.127	-700	•561·		100.040 187.777
193.675	10.446	8.727	4.018	2.122	.699	•562		19 <b>4.</b> 982
201.130	10.439	8.718	4.021	2.118	•698	•562		202.466
					···		4 J X O	

### NSHC/HOL/TR 75-45

MACH NO = 15.00	CONE ANGLE =	5.00	ANGLE OF	ATTACK = 1J.00

		P /	P FREE-S	TREAM A	T PLANE	ANGLES		
L/RN	0	30.	60.	90.	120.	150.	180.	S/RN
	• -							
.728	55.729	51.603	41.628	30.695	22.303	17.474	15.941	1.296
.856	36.847	33.864	26.749	19.201	13.610	10.476	9.500	1.426
1.010	29.670	27.134	21.159	14.988	10.546	8.113	7.365	1.581
1.349	26.696	24.323	18.820	13.297	9.395	7.281	6.639	1.921
1.706	24.081	21.889	16.848	11.960	8.638	6.905	6.391	2.279
2.226	20.976	18.968	14.436	10.259	7.604	6.389	6.101	2.802
2.734	18.807	16.778	12.539	8.891	6.772	5.969	5.850	3.311
3.420	16.828	14.799	10.771	7.509	5.758	5.410	5.517	4.000
4.043	15.698	13.603	9.623	6.567	5.027	4.917	5.194	4.626
4.833	14.850	12.618	8.604	5.679	4.326	4.392	4.773	5.418
5.512	14.474	12.086	7.981	5.120	3.858	4.035	4.455	6.101
6.339	14.328	11.708	7.439	4.606	3.409	3.681	4.134	6.931
7.030	14.403	11.560	7.112	4.271	3.114	3.434	3.903	7.625
7.854	14.667	11.535	6.832	3.954	2.833	3.183	3.654	8.452
8.532	14.992	11.613	6.669	3.744	2.642	3.008	3.469	9.132
9.332	15.478	11.794	6.538	3.539	2.449	2.833	3.277	9.935
9.983	15.957	12.003	6.470	3.399	2.311	2.712	3.143	10.589
10.746	16.620	12.311	6.428	3.258	2.166	2.588	3.013	11.354
11.364	17.241	12.613	6.421	3.160	2.059	2.499	2.926	11.975
12.085	18.G46	13.032	6.441	3.059	1.946	2.406	2.841	12.699
12.670	18.742	13.426	6.476	2.988	1.861	2.337	2.782	13.285
13.354	19.57-7	13.949	6.540	2.916	1.768	2.263	2.723	13.972
13.911	20.247	14.422	6.606	2.866	1.698	2.207	2.680	14.531
14.568	20.996	15.022	6.701	2.816	1.619	2-145	2.634	15.191
15.109	21.557	15.541	6.791	2.781	1.558	2.097	2.600	15.733
15.754	22.138	16,178	6.910	2.747	1.489	2.042	2.564	16.381
16.292	22.534	16.710	7.020	2.725	1.434	1.999	2.537	16.921
16.944	22.889	17.340	7.163	2.705	1.371	1.948	2.509	17.576
17.497	23.078	17.846	7.293	2.693	<b>1.320</b>	1.906	2.488	18.131
18.178	23.171	18.419	7.464	2.684	1.262	1.857	2.466	18.814
18.765	23.139	18.856	7.619	2.682	1.214	1.815	2.451	19.404
19.503	22.990	19.312	7.823	2.684	1.159	1.765	2.436	20.145
20.152	22.799	19.614	8.010	2.691	1.115	1.721	2.425	20.796
20.981	22.528	19.850	8.255	2.705	1.064	1.667	2.415	21.628
21.722	22.299	19.915	8.479	2.722	1.023	1.619	2.468	22.372
22.673	22.067	19.824	8.771	2.748	.979	1.559	2.399	23.327
23.515	21.946	19.620	9.034	2.774	. 946	1.508	2.389	24.172
24.599	21.903	19.248	9.373	2.811	.911	1.444	2.374	25.260
25.578	21.941	18.862	9.678	2.846	.886	1.389	2.355	26.243
26.863	22.030	18.374	10.061	2.895	-862	1.321	2.324	27.533
28.037	22.106	18.007	10.375	2.941	.348	1.263	2.288	28.712
29.543	22.182	17.667	10.695	2.998	.837	1.197	2.234	30.223
30.840	22.235	17.478	10.861	3.042	.832	1.146	2.183	31.525
32.436	22.282	17.337	11.000	3.089	.830	1.092	2.117	33.127
33.801	22.295	17.265	11.031	3.126	.831	1.051	2.060	34.497

MACH NO # 15.00 CONE ANGLE # 5.00 ANGLE OF ATTACK # 10.00

, ,	377 110 2	13000	JOHL MICE	.1	, ,,,,,,,	L OF ATT	vár. – s	
		0 /	P FREE-ST	REAM AT	PLANE	ANGLES		
L/RN	0 •	30.	60.	90.	120.	150.	180.	S/RN
E / KI	<b>u</b> •	30•	000	J	160.	1700	100+	37 KM
35.485	22.260	17.211	11.010	3.170	.833	1.008	1.993	36.188
36.933	22.185	17.181	10.957	3.210	.837	•975	1.938	37.641
38.729	22.060	17.164	10.864	3.265	.843	.941	1.875	39.444
40.278	21.953	17.165	10.768	3.318	.851	.915	1.826	40.999
42.206	21.839	17.185	10.637	3.393	.863	.889	1.771	42.935
43.873	21.762	17.213	10.519	3.463	.876	.869	1.728	44.508
45.949	21.693	17.252	10.372	3.550	.894	.849	1.681	46.691
47.744	21.657	17.285	10.250	3.621	.910	.835	1.645	48.493
49.977	21.644	17.321	10.106	3.699	.931	.820	1.606	50.735
51.905	21.657	17.348	9.988	3.756	.948	.810	1.577	52.678
54.298	21.698	17.382	9.849	3.817	.967	.799	1.544	55.973
56.359	21.747	17.413	9.735	3.859	.982	.792	1.518	57.142
58.914	21.815	17.455	9.601	3.901	.999	.783	1.490	59.707
61.112	21.874	17.494	9.491	3.928	1.013	•777	1.468	61.913
63.833	21.944	17.545	9.362	3.951	1.028	.770	1.443	64.644
66.173	22.001	17.592	9.256	3.964	1.039	.764	1.423	66.993
69.076	22.062	17.655		3.972	1.053	•758	1.400	
71.564	22.106	17.714	9.026	3.973	1.063	•753	1.382	72.404
74.656	22.151	17.790	8.903	3.969	1.074	•7.48	1.362	75.508
77.320	22.182	17.859		3.961	1.082	•744	1.346	78.182
80.628	22.215	17.943		3.947	1.090	.739	1.327	
83.483	22.239	18.014		3.932	1.096	.735	1.313	
87.034	22.265	18.097		3.910	1.101	.730	1.296	
90.101	22.284	18.163	8.364	3.889	1.101	•735	1.283	
93.920	22.305	18.237		3.862	1.105	.720	1.267	
97.223	22.321	18.294	8.162	3.837	1.105	.716	1.255	
101.337	22.338	18.354	8.059	3.806	1.104	.711		102.291
104.896	22.350			3.779	1.103	.706		105.864
109.333	22.362	18.441	7.889	3.747	1.101	.701		110.318
113.173	22.369		7.820	3.721	1.100	.697		114.173
117.961	22.374	18.498	7.745	3.689	1.098	•692		118.978
122.106	22.376	18.515		3.564	1.095	.689	-	123.140
127.275	22.37.4	18.529		3.634	1.092	.685		128.329
131.752	22.370	18.535	7.587	3.611	1.089	.681		132.823
137.336	22.363	18.537	7.546	3 . 584	1.084	.678		138.428
142.173	22.355	18.534	7.519	3.564	1.079	.675		143.283
148.206	22.343	18.525	7.496	3.540	1.073	.672		149.339
153.432	22.331	18.514	7.485	3.523	1.068	•670	-	154.586
159.952	22.315	18.496	7.482	3.503	1.062	.667		161.130
165.599	22.300		7.488	3.488	1.057	.665		165.799
172.643	22.282	18.450	7.505	3.472	1.052	•663		173.870
178.743	22.266	18.425	7.527	3.460	1.047	.661		179.993
186.350	22.246	18.391	7.564	3.447	1.042	.659		187.629
192.936	22.229		7.603	3.438	1.038	.658		194.240
201.145	22.208		7.659	3.428	1.033	•656		202.481
F0 T4 T43	5 £ 9.5 U.O	TOFOLI	, , ,	0.450	11000	• 0 7 0	**************************************	

### NSHC/HOL/TR 75-45

MACH NO = 20.00 CONE ANGLE = 5.00 ANGLE OF ATTACK = 10.00

		Р/	P FREE-S	TREAM AT	PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150.	180.	S/RN
.729	97.948	90.656	73.042	53.754	38.976	30.488	27.797	1.297
.857	64.720	59.452	46.894	33.594	23.762	18.262	16.550	1.427
1.059	51.081	46.650	36.248	25.572	17.935	13.780	12.509	1.630
1.411	45.873	41.754	32.241	22.770	16.125	12.537	11.447	1.983
1.860	40.189	36.474	27.968	19.830	14.417	11.688	10.907	2.434
2.407	34.927	31.350	23.685	16.840	12.614	10.770	10.384	2.984
3.045	30.720	27.225	20.093	14.120	10.815	9.834	9.804	3.624
3.756	27.763	24.196	17.308	11.928	9.135	8.795	9.159	4.338
4.390	26.125	22.406	15.563	10.452	7.996	7.965	8.543	4.974
5.180	24.937	20.948	14.005	9.097	6.901	7.132	7.826	5.767
5.985	24.404	20.054	12.897	8.093	6.041	6.463	7.221	6.575
6.792	24.364	19.575	12.109	7.330	5.375	5.912	6.711	7.385
7.591	24.682	19.407	11.551	6.742	4.861	5.453	6.261	8.187
8.376	25.245	19,466	11.161	6.285	4.454	5.075	5.860	8.975
9.148	25.987	19.689	10.896	5.921	4.120	4.766	5.517	9.743
9.760	26.732	19.967	10.746	5.672	3.882	4.550	5.278	10.365
10.480	27.791	20.392	10.633	5.422	3.634	4.331	5.042	11.787
11-172	29.025	20.915	10.580	5.213	3.420	4.147	4.853	11.782
11.838	30.398	21.540	10.576	5.038	3.234	3.989	4.701	12.450
12.477	31.857	22.270	10.612	4.891	3.070	3.851	4.575	13.892
13.092	33.343	23.098	1-0.683	4.767	2.924	3.729	4.469	13.709
13.687	34.799	24.013	10.781	4.664	2.792	3.620	4.377	14.306
14.263	36.175	25.002	10.902	4.577	2.671	3.521	4.296	14.885
14.733	37.233	25.870	11.018	4.515	2.577	3.444	4.236	15.357
15.287	38.364	26.953	11.173	4.453	2.472	3.359	4.171	15.913
15.835	39.318	28.062	11.344	4.40-2	2.372	3.278	4.114	16.463
16.381	40.070	29.182	1:1.533	4.360	2.277	3.201	4.062	17.011
16.930	40.599	30.292	11.738	4.326	2.186	3.128	4.017	17.561
17.485	40.892	31.374	11.962	4.300	2.098	3.056	3.978	18.119
18.054	40.949	32.406	12.208	4.281	2.012	2.985	3.944	18.690
18.543	40.827	33.208	12.432	4.271	1.942	2.926	3.920	19.181
19.152	40.504	34.067	12.729	4.265	1.859	2.854	3.896	19.793
19.795	40.027	34.765	13.060	4.267	1.777	2.780	3.876	20.437
20.478	39.447	35.239	13.432	4.276	1.697	2.702	3.860	21.124
21.213	38.836	35.429	13.853	4.294	1.619	2.620	3.847	21.861
21.998	38.302	35.301	14.326	4.321	1.545	2.533	3.836	22.649
22.828	37.956	34.858	14.851	4.357	1.477	2.442	3.823	23.483
23.717	37.840	34.125	15.438	4.402	1.416	2.347	3.805	24.375
24.514	37.910	33.343	15.978	4.447	1.371	2.263	3.784	25.175
25.552	38.133	32.321	16.685	4.511	1.324	2.157	3.748	26.217
26.699	38.411	31.353	17.421	4.587	1.286	2.046	3.696	27.368
27.965	38.654	30.555	18.107	4.671	1.258	1.932	3.624	28.639
29.323	38,835	30.009	18.618	4.751	1.241	1.822	3.534	35.003
30.77-3	38.983	29.703	18.889	4.821	1.232	1.720	3.428	31.457
32.275	39.100	29.578	18.951	4.884	1,228	1.629	3.314	32.966

MACH NO = 20.00 CONE ANGLE = 5.00 ANGLE OF ATTACK = 10.00

		P /	P FREE-ST	REAM AT	PLANE	ANGLES		
L/RN	0.	30.	60.	90•	120.	150.	180.	S/RN
								_
33.556	39.106	29.544	18.891	4.935	1.228	1.561	3.217	34.251
35.135	38.946	29.534	18.733	5.002	1.231	1.490	3.102	35.837
36.769	38,654	29.546	1-8.511	5.084	1.239	1.428	2.990	37.477
38.465	38.348	29.593	18.247	5.190	1,251	1.374	2.883	39.180
40.229	38.085	29.680	17.953	5.324	1.270	1.327	2.783	40.950
42.064	37.876	29.792	17.647	5.482	1.295	1.287	2.690	42.792
43.977	37.726	29.905	17.349	5.648	1-325	1.253	2.605	44.712
45.631	37.651	29.984	17.113	5.780	1.353	1.230	2.540	46.372
47.688	37.628	30.055	16.846	5.921	1.386	1.205	2.467	48.437
49.823	37.683	30.106	16.590	6.042	1.418	1.185	2.402	50.581
52.036	37.796	30.154	16.339	6.140	1.448	1.167	2.341	
54.324	37.935	30.208	16.094	6.215	1.474	1.151	2.286	
56.689	38.079	30.267	15.854	6.268	1.497	1.136	2.234	
59.130	38.223	30.332	15.622	6.302	1.517	1.123	2.185	59.923
61.649	38.356	30.405	15.398	6.321	1.536	1.110	2.139	
63.810	3.8 • 453	30.476	15.216	6.326	1.551	1.100	2.103	64.621
66.482	38.545	30.578	15.003	6.321	1-568	1.089	2.061	67.303
69.245	38.610	30.701	14.797	6.304	1.583	1.078	2.022	70.077
72.105	38.657	30.840	14.594	6.276	1.598	1.068	1.985	72.948
75.069	38.696	30.992	14.393	6.239	1.611	1.058	1.950	75.923
78.144	38.731	31.148	14.192	6.194	1.621	1.049	1.917	79.010
81.336	38.766	31.305	13.992	6.141	1.629	1.040	i.886	82.214
84.092	38.795	31.434	13.827	6.092	1.632	1.033	1.862	84.980
87.518	38.832	31.582	13.633	6.028	1.633	1.023	1.833	88.420
91.082	38.871	31.718	13.444	5.961	1.632	1.014	1.805	
94.788 98.645	38.911 38.948	31.839	13.265	5.892	1.628	1.004	1.778	
102.658	38.980	31.942 32.028	13.095	5.823	1.623	.994	1.752	99.589
106.835	39.004	32.097	12.939 12.796	5.753 5.685	1.619	.983		163.618
111.183	39.020	32.151	12.756		1.614	.973		107.810
114.942	39.027	32.185	12.574	5.618 5.564	1.609	•963		112.175
119.623	39.028	32.213	12.476	5.503	1.604 1.597	•955		115.948
124.498	39.021	32.229	12.396	5.446	1.587	•946 •937		120.647 125.541
129.575	39.007	32.233	12.332	5.393	1.574	•937 •928		130.637
134.864	38.987	32.227	12.287	5.344	1.559	•920	=	
148.374	38.963	32.211	12.260	5.300	1.543	.911		135.947 141.478
146.114	38.936	32.186	12.253	5.261	1.527	.903	-	147.240
151.081	38.911	32.157	12.262	5.233	1.514	.896		152.225
157.268	38.880	32.114	12.291	5.202	1.501	.889		158.436
163.713	38.847	32.062	12.340	5.177	1.488	.882		164.906
170.426	38.813	32.002	12.410	5.157	1.476	.875	-	171.644
177.415	38.778	31.934	12.500	5.141	1.464	.869		178.659
184.690	38.742	31.859	12.610	5.129	1.451	.864		185.962
192.261	38.706	31.779	12.739	5.121	1.439	.859		193.563
200.138	38.670	31.692	12.888	5.116	1.427	854		201.469
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MACH NO = 25.00 CONE ANGLE = 5.00 ANGLE OF ATTACK = 10.00

L/RN 0. 30. 60. 90. 120. 150. 180.	S/RN
	J. 1.11
.730 152.229 140.865 113.431 83.400 60.421 47.223 43.052	1.297
.889 89.901 82.397 64.593 45.909 32.236 24.651 22.300	1.460
1.110 77.959 71.127 55.131 38.799 27.160 20.850 18.929	1.682
1.477 69.732 63.423 48.900 34.550 24.555 19.184 17.558	2.349
1.940 50.810 55.136 42.193 29.893 21.801 17.804 16.689	2.515
2.501 52.817 47.268 35.565 25.266 19.024 16.384 15.867	3.277
3.148 46.526 41.119 30.205 21.167 16.215 14.892 14.941	3.727
3.865 42.158 36.622 26.044 17.868 13.684 13.265 13.900	4.447
4.628 39.387 33.543 23.006 15.288 11.682 11.778 12.739	5.213
5.417 37.841 31.542 20.815 13.378 10.108 10.575 11.675	6.005
6.215 37.223 30.333 19.252 11.949 8.878 9.601 10.790	6.806
7.009 37.298 29.709 18.134 10.857 7.929 8.792 10.031	7.603
7.792 37.862 29.518 17.340 10.015 7.194 8.121 9.354	8.389
8.681 38.928 29.684 16.707 9.259 6.519 7.488 8.606	9.282
9.418 40.119 30.055 16.347 8.750 6.047 7.051 8.177	10.722
10.129 41.581 30.581 16.110 8.333 5.647 6.690 7.778	10.735
19.811 43.329 31.252 15.970 7.987 5.304 6.387 7.457	11.419
11.463 45.331 32.073 15.908 7.697 5.007 6.129 7.198	12.074
12.087 47.521 33.052 15.912 7.453 4.748 5.907 6.985	12.701
12.684 49.813 34.187 15.970 7.247 4.519 5.712 6.806	13.300
13.257 52.120 35.466 16.073 7.073 4.315 5.539 6.653	13.875
13.809 54.364 36.872 16.211 6.926 4.130 5.383 6.519	14.429
14.343 56.479 38.384 16.380 6.802 3.960 5.242 6.401	14.965
14.863 58.406 39.983 16.575 6.698 3.803 5.112 6.295	15.487
15.372 60.099 41.646 16.792 6.640 3.656 4.991 6.201	15.998
15.875 61.518 43.352 17.030 6.537 3.516 4.877 6.117	16.502
15.457 62.781 45.364 17.335 6.465 3.362 4.752 6.030	17.987
16.957 63.498 47.083 17.620 6.416 3.235 4.649 5.966	17.589
17.462 63.865 48.767 17.930 6.375 3.111 4.549 5.909	18.995
17.978 63.888 50.388 18.269 6.343 2.990 4.450 5.859	18.514
18.510 63.590 51.905 18.643 6.319 2.871 4.351 5.817	19.148
19.064 63.007 53.259 19.057 6.304 2.753 4.251 5.782	19.704
19.646 52.185 54.374 19.520 6.298 2.636 4.147 5.753	28.289
20.264 61.193 55.161 20.044 6.302 2.519 4.040 5.729	20.909
20.926 60.135 55.528 20.640 6.317 2.404 3.925 5.710	21.573
21.633 59.186 55.408 21.320 6.345 2.294 3.804 5.693	2-2-283
22.376 58.527 54.784 22.083 6.385 2.190 3.678 5.676	23.929
23.167 58.235 53.666 22.944 6.438 2.095 3.544 5.655	23.823
24.019 58.318 52.151 23.921 6.506 2.009 3.402 5.626	24.678
25.108 58.778 50.154 25.209 6.607 1.922 3.224 5.573	25.771
26.143 59.315 48.512 26.400 6.713 1.861 3.061 5.506	26.811
27.291 59.804 47.113 27.554 6.832 1.814 2.892 5.411	27.963
28.532 60.162 46.117 28.470 6.948 1.782 2.725 5.290	29.208
29.853 60.442 45.552 29.001 7.048 1.762 2.567 5.144	30.534
31.260 60.705 45.331 29.160 7.133 1.751 2.421 4.980	31.947

MACH NO = 25.00 CONE ANGLE = 5.00 ANGLE OF ATTACK = 10.00

		P /	P FREE-SI	REAM AT	PLANE	ANGLES		
L-/RN	0.	30.	60.	9¢•	120.	150.	180.	S/RN
32.725	60.824	45.311	29.046	7.213	1.747	2.290	4.807	33.417
34.229	60.588	45.363	28.758	7.297	1.748	2.177	4.632	34.927
35.783	60.064	45.434	28.363	7.402	1.755	2.079	4.461	36.487
37.395	59.501	45.547	27.897	7.546	1.770	1.993	4.295	38.185
39.071	59.022	45.719	27.381	7.743	1.794	1.919	4.138	39.787
40.815	58.637	45.939	26.850	7.989	1.828	1.856	3.990	41.538
42.944	58.321	46.195	26.265	8.302	1.889	1.795	3.831	43.675
44.851	58.172	46.363	25.814	8.556	1.931	1.751	3.706	45.590
46.834	58.161	46.468	25.398	8.775	1,982	1.715	3.592	47.580
48.891	58.295	46.533	24.997	8.955	2.029	1.683	3.487	49.645
51.020	58.517	46.593	24.602	9.095	2.071	1.656	3.390	51.782
53.219	58.764	46.661	24.214	9.192	2.106	1.632	3.301	53.990
55.488	59.011	46.735	23.835	9.255	2.136	1.609	3.218	56.267
57.827	59.250	46.815	23.474	9.292	2.162	1.588	3.140	58.615
60-237	59.465	46.908	23.124	9.306	2.186	1.567	3.066	61.334
62.722	59.637	47.028	22.789	9.298	2.208	1.548	2.997	63.528
65,286	59.2753	47-184	22.468	9.271	2.229	1.530	2.932	66.193
67.937	59.821	47.378	22.159	9.228	2.250	1.51:3	2.870	68.754
70.680	59.865	47.599	21.858	9.168	2.269	1.497	2.812	71.517
74.005	59.909	47.879	21.511	9.080	2.288	1.480	2.750	74.855
76-971	59.947	48.129	21.214	8.990	2.300	1.466	2.699	77.832
80•:049	59.988	48.380	20.917	8.887	2.307	1.452	2.652	80.922
83.247	60.038	48.628	20.622	8.776	2.308	1.438	2.607	84,132
86.570	60.100	48.862	20.331	8.661	2.304	1.423	2.563	87.468
90.025	60.171	49.074	20.049	8.543	2.296	1.407	2.521	90.936
93.616	6 0 • 2.44	49.259	19.779	8.423	2.286	1.391	2.479	94.541
97 - 35 1	60.310	49.416	19.526	8.304	2.275	1.375	2.438	98.290
101.234	60.364	49.545	19.295	8.187	2.265	1.358	2.397	102.188
105.272	60.405	49.649	19.087	8.072	2.256	1.341	2.355	106.242
109.473	60.431	49.728	18.984	7.962	2.247	1.325	2.314 2.274	110.458 114.845
113-843	60.442	49.785	18.748	7.858	2.235	1.309	2.234	119.409
118.389	60.438	49.821	18.618	7.761	2.219	1.293		124.369
123-929	60.416	49.840	18.501	7.657	2.193	1.276 1.260	2.150	129.947
128.888	60.386	49.838	18.431	7.577	2.165	1.245		135.129
134.050	60.349	49.820	18.390	7.505	2.134 2.103	1.236		140.524
139.425	60.306	49.786	18.379	7.442	2.075	1.235		146.142
145.021	60.260	49.736	18.399	7.388 7.343	2.051	1.201		151.990
150.846	60.210	49.670	18.450	7.343	2.029	1.187		159.377
156.911	60.159	49.590 49.495	18.534 18.651	7.279	2.029	1.175		164.413
163.223	60.107	49.495	18.800	7.26.9	1.984	1.164		171.366
169.790	60.053	49.307	18,983	7.248	1.961	1.153		177.864
175,622	5 <u>9999</u> 59943	49.135	19.197	7.244	1.938	1.143		184.997
183.728	59.886	48.993	19.442	7.246	1.916	1.134		192.412
191.115 200.101	59.819	48-818	19.766	7.255	1.894	1.124		201.432
40 U:+ 10 1	22.072	4 C * OT Q	7 30-100	1 1 6 2 2 2	7.0-24	4+467	20.00	

MACH NO = 30.00 CONE ANGLE = 5.00 ANGLE OF ATTACK = 10.00

		P /	P FREE -	STREAM A	T PLANE	ANCLES		
L/RN	9.	3 G.	68.		_	ANGLES	4.0.0	
		30-0	00.	30-€	120.	150.	180.	S/RN
•730	218.573	202.236	162.795	119.636	86.621	67.691	64 694	4 000
• 896	129.065	118.276	92.686		46.210	35.321	61.681	1.298
	111.896	102.078	79.097		38.929	_	31.949	1.460
	100.024	90.965	70.113		35.177	29.874	27.118	1.681
1.938	87.163	79.022	60.454		31.213	27.473	25.138	2.748
2.590	73.928	66.021	49.471			25.479	23.879	2.512
3.257	65.316	57.564	42.077		26.553	23.086	22.466	3.176
3.980	59.406	51.436	36.367		22.527	20.897	21.113	3.936
4.745	55.698	47.261	32.239		19.016	18.562	19.572	4.562
5.532	53.671	44.558	29.213		16.256	16.490	17.904	5.330
5.456	52.890	42.749	26.779		14.085	14.824	16.417	6.120
7.242	53.207	42.037	25.326		12.149	13.265	14.993	7.048
9.012	54.134	41.883	24.293	14.993	10.900	12.172	13.944	7.836
8.761	55.474	42.125	23.565	13.877	9.925	11.267	13.006	8.609
9.485	57.172	42.638	23.062	12.999	9.138	10.526	12.191	9.361
10.294	59.655	43.501	22.684	12.291	8.483	9.917	11.508	10.288
12.955	62.227	44.460	22.590	11.624	7.843	9.338	10.871	10.900
11.586	65.150	45.635		11.154	7.378	8.927	10.439	11.564
12.188	68.320	47.035	22.421	1 .760	6.975		10.088	12.197
12.856	72.172	48.941	22.429	10.426	6.624	8.272	9.797	12.802
13.404	75.478	50.788	22.528	10.102	6.266	7.964	9.513	13.473
13.930	78.655	52.806	22.675	9.871	5.992	7.731	9.305	14.222
14.439	91.640	54.969	22.868	9.675	5.744	7.521	9.123	14.550
14.934	94.350		23.098	9.510	5.516	7.329	8.961	15.961
15.498	87.081	57.248	23.362	9.370	5.305	7 • 15-3.	8.816	15.558
15.975	88.991	60.017	23.705	9.232	5.074	6.963	8.666	16.125
15.448		62.452	24.030	9.133	4.888	6.811	8.552	16.603
16.921	90.457	64.913	24.382	9.049	4.709	6.666	8.450	17.778
17.398	91.449	67.371	24.762	8 • 97-8	4537	6.526	8.360	17.553
17.957	91.956	69.795	25.173	8.919	4.369	6.391	8.281	18.732
13.476	91.948	72.524	25.700	8.863	4.178	6.235	8.201	18.603
18.992	91.459	74.715	26.199	8.825	4.016	6.102	8.143	19.108
	90.569	76.686	26.753	8.799	3.855	5.967	8.094	19.632
19.541	39.332	79.332	27.373	8.783.	3.695	5.829	8.653	20.183
20.222	87.573	79.676	28.199	8.781	3.508	5.659	8.014	20.866
20.850	85.971	86.193	29.019	8.795	3.349	5.504	7.988	
21.519	84.548	80.004	29.956	8.825	3.195	5.340	7.964	22.168
22.221	93.557	79.080	31.014	8.873	3.051	5.169	7.941	22.873
22.966	83.104	77.426	32.216	8.939	2.916	4.988	7.914	23.621
23.906	83.270	74.767	33.838	9.042	2.774	4.760	7.869	24.565
24.787	83.893	72.202	35.428	9.158	2.667	4.551	7.811	25.449
25.755	84.747	69.711	37.160	9.300	2.576	4.328	7.727	26.420
25.826	95.570	67.536	38.894	9.462	2.504	4.094	7.609	27.495
27.996	86.178	65.906	40.354	9.625	2.453	3.857	7.453	28.67.0
29.456	36.698	64.843	4-1-378	9.787	2.415	3.595	7.236	30.135
39.788	87.137	64.525	41.648	9.897	2.396	3.388	7.009	31.473
					<del>-</del> -			O 7 4 4 ( O

MACH NO = 30.00	CONE ANGLE =	5.00	ANGLE OF	ATTACK =	13.88
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		p / s	FOEE-S	TREAM AT	PLANE	ANGLES		
·F\oN	9•	30.	60.	90.	120•	15G-	186.	SZRN
32.196	87.396	64.532	41.489	9.997	2.386	3.200	6.77-0	32.887
37.657	37-115	64.658	41.052	10.100	2.383	3.034	6.525	34.352
35.422	86.160	64.859	40.332	10.253	2.391	2.868	6.243	36.123
36.992	85.278	65.064	39.603	10.446	2.409	2.745	6.028	37.791
39.627	84.542	55.356	38.800	10.722	2.440	2.640	5.783	39.342
43.329	83.954	65.716	37.985	11.077	2.488	2.550	5.570	41.650
42.134	83.526	66.075	77.231	11.473	2.550	2.473	5.370	42.832
44.270	83.245	66.389	36.460	11.913	2.633	2.480	5.156	45.006
46.297	93.241	66.538	35.861	12.231	2.705	2.347	4.988	46.950
48.215	33.457	66.616	35.282	12.486	2.771	2.303	4.833	48.966
59.292	83.824	66.685	34.719	12.675	2.829	2.264	4.691	51.351
52.436	84.298	66.766	34-148	12.800	2.876	2.228	4.560	53.234
55.02	84.643	66-870	33.513	12.884	2.921	2.190	4.418	55.799
57.309	84.998	66.967	32.988	12.921	2.953	2.159	4.305	58.195
59.665	85.333	67.086	32.486	12.924	2.982	2.129	4.198	60.460
62.092	85.538	67.252	32.037	12.896	3 • 0 1 0	2.101	4.097	62.397
65.022	85.590	67.519	31.483	12.833	3.041	2.071	3.988	65.838
67.625	95.750	67.868	31.050	12752	3.068	2.047	3.900	68.450
73.318	85.787	68-136	70.634	12.647	3.093	2.025	3.819	71.154
77.108	85.822	68.485	70.223	12.520	3.113	2.003	3.742	73.954
76.031	95.861	68-847	29.812	12372	3.127	1.983	3.671	76.859
79.516	95.920	69-277	29.331	12.179	3.134	1.960	3.592	80.387
8-2.656	85.994	69.638	28.923	12.004	3.130	1.943	3.529	83.539
85.918	86.091	69.976	28.513	11.826	3.119	1.918	3.468	86.814
8-9. 398	36-204	79.280	28.116	11.645	3.102	1.896	3.468	98.216
92.831	36.318	70.543	27-737	11.464	3.083	1.872	3.349	93.753
97.117	86.474	7-9799	27.328	11.254	3.061	1.843	3.280	98. 55
10-7.947	96.514	72.976	27.012	11.079	3.045	1.818	3.221	101.900
194.920	96.572	71-117	26.733	10.911	3.030	1.794	3.162	165.897
109.059	96.696	71.222	26.492	10.751	3.014	1.770	3.103	110.053
114.109	86.615	71.304	26.253	10.577	2.988	1.742	3.035	115.112
118.617	86.597	7-1-345	26.192	16.441	2.957	1.719	2.977	119.537
123,317	86.562	71.360	25.985	13.317	2.916	1.696	2.921	124.345
128.187	36.513	71-351	25.909	10.206	2-868	1.672	2.866	129.244
133.267	96.455	71:.318		10.109	2.818	1.648	2.812	134.343
137.455	36.379	71-249	25.892	10.012	2.764	1.621	2.751	140.555
144.997	86.328	71.165	25.955	9.944	2.724	1.598		146.114
159.757	36.235	71:.058	26 . CF4	9.891	2.690	1.577		151.900
156.754	36.161	70.929	26.222	9.851	2.556	1.557		157.920
162.99?	86.085	7.G.•-77 <sup>:</sup>	26-427	9.825	2.620	1.538		164.182
171.587	85.995	73.579	26.728	9.810	2.575	1.518		171.905
177.376	95.916	79.388	27.938	9-810	2.537	1.502		178.521
184.432	35.834	7º0.• 181	27.394	9.820	2.503	1.487	2.449	
191.763	9Ē.751	65.961	27.795	9-840	2-474	1.473		193.063
203.675	95.652	69.690	28.318	9.877	2.443	1.458	2.385	202.008

MA	CH NO =	3.50	CONE	ANGLE =	6.00	) AN	GLE OF	ATTACK =	10.00
			5 -5	- 0-0-1		0. 44	- 11161	F.0	
	•			E-STREA					SZRN
L/RN	0.	30•	61	0•	90•	120.	150	. 180.	21KM
•683	4.380	4.114	3.45	54 2.	696	2.081	1.70	8 1.586	1.249
.754		3.403					1.35	5 1.255	1.323
.816		2.870					1-10	2 1.018	1.386
.929		2.252							
1.061		2.285				1.020			
	2.461						. 81	6 • 754	
1.460	2.434	2.249	1.81		350	1.012	82		2.033
1.674	2.394	2.212	1.75	78 1.	330	1.007	•:83	0 .776	2.248
1.916	2.344	2.164	1.7	38 1.	303	.996	. 83		2.492
2.188	2.286	2.109	1.68	89 1.	270	.983	•-84	8 .815	2.765
2.490	2.241	2.054	1.63	34 1.	235	•968	•85	6 -835	3.069
2.940	2.188	2.090	1.5	89 1. 34 1. 77 1.	187	. 946	• 85	9 •851	3 • 522
3.313	2.158		エモン	46 10	100	• 5 2 0	• • • • • • • • • • • • • • • • • • • •	1 .851	3 • 897
3.716	2.1.38	1.941	1.5	09 1.	123	• 90 4	- 86	1 .873	4.302
4.148	2.125	1.923	1.48	82 1.	096	.883	-86	0 .887	4.736
4.609	2.119	1.911	1.40	60 1.	072	.864	85	7 .899	5.200
5.268	2.120	1.904	1.4	37 1.	0.44		s .•∄\$5		5 • 863
	2.125					.831	. •⁻85	1 .912	6.342
	2.134						•:85		
6.927	2 • 1 4 5	1.911	1.4	0:7 •	997	.809	•:85	2 -917	7.531
7.532	2.157	1.918	1.4	02 .	986	.800	85	5 •923	8.139
8.379	2.174	1.929	1.39	97 •	973	•78 <sup>9</sup>	•:85	9 •932	8.990
9.042	2 • 1 38	1.938	1.35	95 .	964	.782	. •:86	2 -940	9.658
9.731	2.201	1.948	1 • 3	94	957	•776	• 86	5 •947	10.350
10.444	2.213	1.957	1.39	93 •	-950	.771		9 •952	
11.182	2.224	1.966	1.39	94 .	944	•766			
11.945	2.235	1.975			939	• 762	87		
13.002	2.247	1.98.5			933	•:75,7			
13.824	2.256	1.994			930	•753			
14.672	2 • 263 2 • 269 2 • 275	2.000			927	•750			
15.547	2.269	2.007	1.4	02 •	925	•747	• 88	3 •971	
		2.012	1.4	04 •	923	•:7:44	⊦ •88	4 973	
17.695	2.281	2.019	1 • 4!	97 •	921	•741		6 •976	
	2.286		1.4					7 •978	
19.659	2 • 2-89	2 • 0:2.7	1.4		919	• 738			
20.686	2.292	2 • 0:30	1.43	-	919	• 7:36			
21 - 7-4-4	2•294	2.033	1 • 4		-918	•735			
23.206	2.297	2 • 0:37	1.43		918	• 7-34	-		
24.342	2∙-298	2.039	1.4		918	•734			
25.514	2.299	2.041	1.4		918	• 733			
26.723	2.300	2.043	1.4		918	•.733			
27.970	2.300	2.044	1.4		918	•= <b>7</b> -3 3			
29.697	2.300	2.046	1.4		919	• <del>7</del> 33			
31.043	2300	2.046	1.4		919	• 733			
32.433	2.4300	2.047	1.4	31 •	919	• 7.33	-89 -89	984	33-177

MAC	CH NO =	3.50	CONE ANGLE	$\Xi = 6.00$	ANGL	E OF ATT	ACK = :	10.00
		-6)	0 5055 074					
L/RN	6•		P FREE-STI		PLANE	ANGLES		
LIKN	0 •	30 •	60.	90•	120.	150.	180.	SIRN
33.869	2.300	2.048	1.433	•919	•733	•892	-983	34.621
35.354	2.299	2.048	1.435	• 91 9	.733	.892	983	36.115
36.889	2.299	2.048	1.437	• 920	•734	.892	•983	37.658
39.018	2.299	2.048	1.439	• 920	.734	.893	•983	39.799
40.678	2.299	2.048	1.442	•920	.734	.893	.982	41.468
42.394	2.298	2.048	1.444	•920	•735	•893	982	43.194
44.159	2.298	2.048	1.446	• 920	• 735	.894	. 982	44.978
46.005	2.298	2.047	1.448	•920	•736	.894	•981	46.824
48.550	2.297	2.046	1.452	•920	.736	. 895	.981	49.383
50.535	2.297	2046	1.454	<b>-920</b>	•737	• 895	.981	51.379
52.588	2.297	2.045	1.457	• 920	•737	• 895	.981	53.443
54.710	2.296	2.044	1.460	• 920	.738	•896	.981	55.577
56.905	2.295	2.044	1.462	• 919	.738	•895	.981	57.784
59.948	2.296	2.043	1.465	• 919	•739	•897	.981	60.844
62.321	2.295	2-•:042	1.468	<b>-</b> -919	•739	.897	•980	63.230
64.77:4	2.295	2.042	1-470	• <b>91</b> -8	•739	•893	•980	65.697
67.310	2.295	2.041	1.472	<b>-</b> 918	•740	•898	•980	68.247
69.933	2.295	2.040	1.474	• 917	•740	<b>-899</b>	.981	70.883
73.567	2.295	2.040	1.476	<b>-91</b> 5	.741	•900	• 98±0	74.538
76.401	2.295	2.039	1.478	•916	.741	•900	•980	77.387
79.330	5.596	2.039	1.479	• 915	•741	.901	• 980	86.332
82 = 358	2.296	2.039	1.480	• 91-5	.742	•901	•980	83.377
85.488	2.297	2 • 0 3 8	j 481	• 915	.742	• 90 2	•980	86.524
88 • 7-2-3	2.297	2.038	1.481	•=914	•743	• 90 2	•980·	89.778
93 • 20 8	2.298	2.038	1.482	• 914	• 743	• 90 3	•988	94.287
96.704	2.298	2.038	1.482	• 914	.744	•903	•980	97.803
100.319	2.298	2 • 0 38	1.482	• 914	.744	•904		101.437
104.055	2.299	2 • 0 3 8	1.481	• 914	•745	• 904		105.194
107.918	2.299	2.038	1.481	• 914	•745	• 90 4		109.078
113.272	2.300	2.038	1.480	• 914	•746	•905		114.462
117-447	2.300	2.038	1.480	• 914	•746	• 905		118.660
121.764	2.300	2.038	1.479	•915	•747	•905		123.000
126.226	2.301	2.038	1.478	•915	.747	906		127.487
130.841	2.301	2 • 0 3 8	1.477	• 91.6	•748	•:906		132.127
137.238	2.301	2.039	1.475	• 916	•748	•906		138.560
142.227 147.386	2.301	2.039	1.474	• 917	•748	•907		143.576
152.721	2.302	2.039	1.473	• 91 8	•749	• 90-7		148.764
158.239	2.302 2.302	2:•0:39	1.471	•918	•749	• 907		154.128
_		2.040	1.470	•919 •000	•749	•907		159.676
165.890 171.857	2.302 2.302	2.040	1.468	926	•750	•907		167.369
178 • 030°	2.302	2.041	1.466	•921 022	•750	•907		173.370
184.413	2.303	2 • 041	1.465	•922 027	•750	• 90 B		179.576
191.016	2.303	2 • 041 2 • 042	i•463	• <u>•</u> 923	•750 754	908		185.995
200.174	2.303	2.042	1.462	•924 926	.751	•-908		192-634
C 0 0 0 T 1-44	6.000	C • U 4 Z	1.460	- <b>•</b> :926	•751	•908	• 979	201,843

MA	CH NO =	5.00	CONE	ANGLE	= 6	• 00	ANG	LE OF	AT	LACK =	10.00
						AT	PLANE				0.4011
L/RN	0.	30.	6	50•	90.		120.	150	•	180.	SZRN
700	7-, 465	6.965	5.7	778	4.360		3.270	2.62	6	2.417	1.274
•708	5.064	5.637		: OF	3.444		2.550	2.02			
•780 •76	4.528	4.186		361	0 4 7 7 2 4 7 7		1.801	1.41			
•876 • 876	4.230	3.898			2.267		1.646	1.29			
1.005		3.755		974			1.567				
1.223	4.085 3.920	3.598			2.069		1.516	1.21			
1.491 1.725	3.772	3.458			1.986		1.472	1.19			
2.077	3.572	3.267			1.864		1.399	1.17			
2.478	3.394	3.078		382			1.331	1.19			
2.475	3.286	2.964			1.650		1.277	1.13			
3.291	3.175				1.544		1.199	1.10		1.099	
3.814	3.105		2.1		1.455		1.125	1.06			
4.232		2.720	1.4		1.397		1.076	1.0		1.074	
4.821	3-074				1.330		1.021	.99		1.051	
5.444	3.096				1.277		•974	•96		1.028	
5.933	3.083				1.244		944	.90		1.014	
6.611	3.119				1.207		908			999	
7,319	3.155	2.713			1.177		•877		LO		
7.871	3.204	2.737			1.158		.856		99		
8.636	3.269	2.775			1.137		•832	-8	37		
9.437	3.316	2.817			1.119		.811	.87		•973	-
10.063	3.358	2.858			1.107		•796				
10.933	3.410	2.895			1.095			. 80	52	.967	_
11.614	3-447	2.928			1.087				57		
12.564	3.493	2.971			1.078				51		_
13.549	3.533				1.072				45		
14.302	3.561	3.038			1.069				41		14.946
15.323	3.592	3.070			1.066				36		-
16.365	3.618	3.099			1.065				31		17.021
17.161	3.634	3.118			1.066		· 68.5		27		17.822
18.245		3.140			1.067		•575		22	• 987	18.911
19.355		3.159			1.069		•667		18		20.028
20.208	3.669	3.172			1.071		•651		14	•990	20.885
21.375	3.674	3.185		021			.654	. 8	09	.992	22.059
22.579	3.677	3.198		0.35	1.079		•649	. 8	05	•993	23-269
23.508	3.678	3.205		044	1.081		.646	• 8		. 993	
24.784	3.678	3.211		057	1.085		•642	•7	98	.993	25-486
26.104	3.678	3.215		058	1.089		•639	•7	94	. 993	26.813
27.125	3.679	3.216		0.76	1.092		•637	•7		• 993	2-7.840
28.530	3.678	3.216		087	1.096		•635	•7		• 992	
29.987	3.678	3.214		0.98	1.100		•634	• 7		• 992	30.718
31.115	3.676	3.212		107	1.103		•633	.7	84	• 991	
32.669	3.674	3.208		119	1.106		•632	•7		•990	33.415
34.281	3.671	3.204		131	i.ii0		•632		79	• 989	
35.531	3.559	3.201		140	1.112		•632°	-• 7	78	• 988	36.292

MAC	CH NO =	5.00	CONE ANGL	E = 6.00	ANGL	E OF ATT	ACK = 1	0.00
			0 5055 0					
L/RN	9.			TREAM AT	PLANE	ANGLES		
LYKN	<b>U</b> •	30•	60•	90•	120.	150.	180-	S/RN
37.252	3.666	3.196	2.153	1.115	•632	•776	•987	38.022
38.585	3.663		2.161	1.117	•632	•775	-986	39.363
40.421	3.550	3.188		1.119	•633		• 985	
42.327	3.657			1.121	•633	•773-	984	
43.803	3.656	3.179		1.122	.634	•773		
45.835	3.654		2.198	1.123	•634	.772		
47.945	3.652	3.171		1.124	•634	.772		
49.578	3.651	3.168	2.208	1.124	•635	.772	•982	
51.828	3.651	3.165	2.212	1.125	.635	•772	-981	
54.162	3.650	3.162	2.214	1.126	•636	.772	980	
55.970	3.650	3.160	2.214	1.127	•636	.772	• 980	
58.459	3.650	3.158	2.214	1.128	•637	•772	-980	
61.042	3.651	3.157	2.213	1.130	•638	•772	.979	
63.043			2.211	1.132	•639	•773	• 979	63.956
	3.653		2.208	1.134	•640	• 773 <sup>-</sup>	979	
	3.654		2.204	1.137	•641	•774	.979	
	3.655		2.200	1.139	•641	•775	.978	
	3.657		2.195	1.143	•642	• 776-	• 978-	
	3.659		2.190	1.146	•643	•777	• 978	78.077
79.538	3.650		2.185		•644	•777	.979	80.542
32.915	3.662		2.179		• 645-		• 979	83,937
86.419	3.664		2.172		•646		• 97 9	87.461
89.135	3.666	3.162			•646	•789	• 979	90.191
92.875	3.668	3.164		1.162	•647	•78 <u>1</u>	• 979	
95.774	3.670	3.165		1.164	•647	•782		
99.768	3.671	3.168	2.148	1.168	•648	• 782		100.883
103.913	3.673	3.170	2.140	1.171	•648	• 78:3		105.052
1:07 • 127	3.675	3.172		1.174	.648	.784		108.282
1:11.554 1:16.152	3•676 3•678	3.174		1-177	•648	• 784=		112.735
119.716	3.679			1.180	•648	•785		117.358
124.628	3.681	3.179 3.181	2.115	1.182	•648	• 785		120.941
129.730	3.682	3.183		1.185	.648	• 786		125.880
_			2•101 2•096	1.188	•648	•786		131.010
139.137	3.684	3.187	2.089		•648	• 786 707		134.987
144.801	3.685	3.189	2.082	1.192	•648	•787 707		140.469
149.192	3.686	3.190	2.078	1.195	•648	•787		146.164
155.247	3.686	3.192	2.072	1.196 1.199	•648	• 78 <del>8</del> -		150.580
161.538	3.687	3.194	2.066	1.201	•648 •648	•788- 700		156.668
166.416	3.687	3.195	2.062	1.202	•648	•788 •789		162.993
173.143	3.688	3.195	2.056	1.204	•648	•789		167•899 174•662
180 - 133	3.688	3.197	2.051	1.206	•647	•790		181.691
185.555	3.588	3.198	2.048	1.208	•647	• 790 • 790		187.143
193.032	3.688	3.198	2.044	1.209	.647	•790		194.660
200.802	3.687	3.199	2.040	1.211	•647	•791		202.473
						4.71	<b>₽</b> ) ( ()	

MA	ICH NO =	10.00	CONE ANGI	LE = 6.	00 ANGL	E OF ATT	TACK = 1	0.00
						431CL EC		
			P FREE-S			ANGLES	4.80	SZRN
L/RN	0 •	30.	60.	90•	120.	150•	180.	57 K II
705	25.572	23.711	19.197	14.228	10.396	8.181	7-474	1.292
•725	18.742	17.280	13.771	10.003	7.173	5.568	5.064	1.393
.823		13.293		7.394	5.212	4.009	3.638	1.536
•965	14.511		9.656	6.870		3.775	3.439	1.793
1.220	13.563 12.494			6.298	-	3.594	3.308	2.110
1-536				5.669	4.154	3.394	3.180	2.489
1.912	11.357	9.307		5.041	3.769	3.192	3.059	2.929
2.351	10.324	8.461	6.305	4.456		3.002		3.427
2.845	9.496		5.707	3.972	3.019	2.789		3.973
3.389		7.380	5.238	3.566	2.696	2.562		
3.971		7.081	4.887	3.239		2.358		5.171
4.580		6.903	4.628	2.986	2.219	2.191		
5.207		6.819		2.788		2.053	2.216	
5.845		6.810	4.309	2.630	1.892	1.936		
6-488		6.860	4.219	2.502	1.772	1.834		
7.132		6.956		2.400	1.674			8.383
7.774 8.414		7.087		2.316	1.590	1.670	-	9.026
	9.200	7.246		2.247	1.517			9.665
9.050				2.189		1.551		10.299
9.680			-	2.141				10.927
10.305				2.100	-	1.462		11.551
10-925				2.065		1-425		12.169
11.540 12.153			-	2.036		1.392		12.785
_				2.015	-	1.368	1.580	13.278
12.643	-			1.994		1.339	1.563	13.896
13.257 13.877			- · · · · · · · · · · · · · · · · · · ·	1.977		1.312	1.547	14.519
14.506				1.963	1.102	1.285	1.533	15.151
15.149	-			1.954	1.067	1.260	1.520	15.798
15.810				1.947		1-234	1.508	16.463
16.497	-			1.945	1.001	1-209	1.497	17.153
17.214	-			1.945	•969	1-183	1.487	17.874
17.968				1.950		1-157	1.478	18.633
18.766				1.958	-909	1-130	1.470	19.435
	1i.829							
20.528	11.786	10.250		1.985	•855	1.074	1.458	21.207
21.506	11.750		-	2.004	-831	1.044	1.453	22.191
22.559	11.722			2.027	.810	1-014	1.447	23.249
_	11.706			2.054	• <del>-</del> 792	-983	1.440	24.388
23.692	11.700	9.952		2.085	.778	• 952	1.429	25.606
26.160				2.117	• <del>-</del> 767	922	1.416	26.870
	11.698			2.150	•760	895	1.399	28.178
27.461 28.807	11.696			2.182	•755	869	1.379	29.531
30.199	11.692			2.213	•753	.846	1.358	30.931
31.637	= -		_	2.243	•752	•824	1.335	32+377
33.125	_			2.272	•:752	.805	1.311	33.873
00 + T C 7	77.00.0	7 4 7 17 0						

	MACH NO =	10-•00	CONE	ANGLE	=	6.00	ANG	SLE OF	AT	TACK =	10-00
		p /	D FO	EE-STR	EAM	AT	PLANE	E ANG	ı EQ	•	
L/R	N 0.	30.		60.	90		120.	. ANG		186.	SZRN
LYK	"	30 •	,	00•	70	•	1500	19	•	T00•	SERIN
34.35	2 11.660	9.560	6.	275	2.29	4	.753	•7	90	1.293	35.107
35.93		9.542			2.32		.756		74	1.270	36.697
37.57		9.530		242	2.35		.760		59	1.247	
39.26		9.522			2.38		.766		46	1.226	40.050
41.02		9.519			2.41		•773		34	1.206	
42.85		9.519			2.45		.781		24	1.187	
44.74		9.523			2.48		•790		15	1.170	45.553
46.70		9.529			2.51		.800		07	1.153	47.523
48.73		9.537			2.55		.810		01	1.138	49.565
50.83		9.546			2.58		.821		95	1.123	51.682
53.01		9.557		901	2.60		.831		90	1.11.0	53.875
55.27		9.570			2.63		.841		85	1.098	56.146
57.61		9.584			2.65		.851		81	1.086	58.498
60.03		9.599			2.67		.860		77	1.075	60.934
62.54		9.617	_		2.68		869	•6		1.065	63.456
65.14		9.635			2.69		.876	• 6		1.056	66.067
67.83		9.655			2.70		.883		67	1.047	68.770
70.61		9.676			2.71		889	•6		1.038	71.570
73.50		9.697			2.72		.894	• 6		1.030	74.470
76.48		9.718			2.72		898		59	1.023	77.475
79.58		9.740			2.72		90.2	• 6		1.016	80.589
82.79		9.761			2.72		•904	•6		1.009	83.818
85.45		9.777			2.72		906	• 6		1.004	86.487
88-87		9.796			2.71		.908	•6		•997	
92.43		9.814			2.71		.909	• 6		-991	
96.13		9.830			2.70		•91 <sup>-</sup> 0		46	• 986	97.225
99.96		9.844			2.79		911		44.		101.080
103.94		9.856			2.69		. 91-1		43		105.083
108.07		9.866			2.68		.912		42		109.240
112.37		9.875	-		2.67		.913		41		113.558
116.83		9.881			2.67		•913		40		118.044
121.47		9.885			2.66		. 913	• 6			122.705
126.28		9.888			2.65		.913	•6			127.547
131-29		9.889			2.64		.913	•6			132.579
136.48		9.889			2.63		.913	• 6		-	137.807
141.89		9.887			2.63		.913	• 6			143.240
147.50		9.884			2.62		.912	•6			148.885
153.34		9.879			2.61		.912	•6		-	154.751
159.40		9.874			2.60		. 912	• 6			160.846
165.70		9.868			2.60		•912		43		167.178
172.24		9.861			2.59		• 91-1		44		173.758
179-04		9.854			2 - 58		.911		44:		180-593
186.10		9.846			2.57		.910	. 6			187.693
193.43		9.838			2.57		.91-0	• 6			195.068
201.05		9.829			2.56		90.9	• 6		-	202.728

Mac	CH NO = :	15.00	CONE ANGL	E = 6.	00 ANGL	E OF ATT	TACK = 1	0.00
				FOEAN A	T PLANE	ANGLES		
			P FREE-ST			150.	180.	S/RN
L/RN	0 •	30•	60.	90•	120.	198.	1000	O7 1
				70 605	22.303	17.474	15.941	1.296
•728	55.729	51.603	41.628	30.695 19.201	13.610	10.476	9.500	1.426
•856	36.847	33.364	26.749	15.487	10.862	8.333	7.559	1.630
1.058	30.709	28.079	21.890	14.242	10.002	7.860	7.172	1-904
1.331	28.437	25.923	20.095	12.606	9.133	7.337	5.809	2.311
1.736	25.355	23.040	17.734	10.910	8.081	6.762	6.438	2.804
2.226	22.384	20.226	15.375		. 7.253	6.327	6.152	3.275
2.694	20.370	18.156	13.548	8.245	6.255	5.758	5.796	3.902
3.318	18.564	16.323	11.870	7.171	5.419	5.157	5.367	
3.990	17.411	15.055	10.597 9.814	6.467	4.861	4.720	4.994	5.165
4.574		14.354	9.014	5.825	4.316	4.298	4.609	
5.288		13.842	8.717	5.412	3.947	4.009	4.350	
5.887	16.583	13.627	8.367	5.021	3.593	3.713	4.085	7.204
6.602	16.820	13.562	8.131	4.718	3.317	3.462	3.846	
7.308	17.228	13.658	8.002	4.517	3.130	3.286	3.665	•
7.885	17.652	13.829	7.906	4.321	2.940	3.107		
8.563	18.235	14.109	7 • 86 0	4.162	2.778	2.960	3.311	-
9.223	18.901	14.449		4.051	2.660	2.856	3.200	
9.757	19.520	14.772	7.851	3.938	2.534	2.749		
10.380	20.331	15.208	7.870	3.857		2.672	3.020	
10.885	21.041	15.614	7•908 7•973	3.774		2.590	2.947	
11.474	21.902	16.150	8 • 0.59	3.703		2.516	2.886	12.681
12.049	22.738	16.734		3.652		2.461	2.841	-
12.519	23.393	17.249	8.257	3.601		2.399	2.793	-
13.075	24.106	17.892		3.557		2.342	2.749	-
13.626	24.721	18.547	8.502	3.527	_	2.296	2.715	
14.086	25.149	19.094	8 • 654	3.497	1.914	2.244	2.678	
14.640	25.552	19.738	-		1.860	2.203	2.648	
15.108	25.790	20.253			1.797	2.154	2.616	-
15.682	25.959	20.834 21.358	= -	3.442	1.736	2.105	2.587	
	26.006			3.435	1.684	2.065	2.566	
16.785	25.963	21.738 22.108	_	3.431	1.623	2.017	2.545	
17.428	25.834	22.362	9.865	3.432	1.561			
18.109	25.647	22.466		3.438	1.511	1.924	2.516	
18.712	25.466	22.454		3.451	1.450	1.871	2.506	
19.485	25.244 25.060	22.304		3.478	1.393	1.815	2.499	-
20.306	24.959	22.083		3.490	1.347	1.765	2.494	21.714
21.032	24.917	21.724		3.522	1.296	1.703	2.486	7
21.967	24.917	21.724	-	3.554	1.258	1.648	2.476	
22.808	24.935	20.945	<b>,</b> -	3.601	1.217	1.577	2.456	_
23.907	25.055	20.570		3.656	1.184	1.504	2.427	
25.119 26.211	25.102	20.330		3.706	1.163	1.442	2.392	
27.613	25.143	20.336		3.772	1.145	1.376	2.340	
29.080	25.167			3.841	1.135	1.305	2.279	29.806
30.341	25.164		-	3.902	1.131	1.255	2.225	31.073

M	ACH NO =	15.00	CONE ANG	LE = 6	-00 ANGL	E OF ATT	TACK =	10.00
		р./	D EDEE-6	TDICAM	4.5 51.41.5	****		
L/RN	0.	30 •	P FREE-S			ANGLES		
2,	•	.JU ◆	00•	90•	120.	150•	180.	S/RN
31.901	25-124	19.967	12.905	3.984	1.131	1.203	2 452	70 (17
33.246		19.964	12.813	4.059		1.164	2.157 2.191	
34.918		19.978	12.676	4.161		1-104	5.036	33.995 35.676
36.659		20.010	12.523	4.274		1.087	1.973	37.426
38.164	24.778	20.046	12.390	4.372		1.061	1.923	38.940
40.040	24.714	20.093	12.232	4.487		1.035	1.867	40.826
41.995	24:•676	20.134	12.079	4.594		1.012	1.816	42.792
43.687	24.665	20.163	11.956	4.674		•995	1.775	
45.793	24.675	20.191	11.813	4.758	1.247	•977	1.730	
47.613	24.701	20.212	11.698	4.818	1.264	964	1.696	48.441
49.875		20.237	11.563	4.876	1.283	950	1.656	50.716
52.225	24.809	20.265	11.432	4,921	1.301	. 93 8	1.620	53.078
54.251	24.861	20.290	11.325	4.949	1.315	• 928	1.591	55.115
56.766	24.923	20.323	11.201	4.972	1.332	• 91 7	1.559	57.644
59.375	24.980	20.361	11.080	4.986	1.348	•907	1.529	60.268
61.626	25.023	20.397	10.982	4.991	1.360	•899	1.505	62.531
64.421	25.067	20.447	10.868	4.990	1.374	-891	1.479	
67.325	25.103	20.502	10.757	4.984		-•=882	1.454	68.262
69.833	25.127	20.552	10.657	4.973	-	•.876	1.434	70.784
7:2.954 75.652	25 • 152	20.613	10.562	4.955		868	1.411	
79.013	25.170 25.189	20.663	10.477			•862	1.393	76.635
82.514	25.205	20.723	10.380	4.911		854	1.373	80.014
85.545	25.216	20.778 20.821	10.289	4.882		.846	1.353	
89.324	25.229	20.866	10.218 10.139	4 - 855		-840	1.336	_
93.265	25.239	20.904	10.139	4.822	1.425	•832	1.317	
96.678	25.0245	20.930	10.016	4•787 4•758	1429	.825	1.298	
100.936	25.250	20.954	9.962	4.723	1.431	819	1.283	
104.625	25-252	20.969	9.924	4.695	1.434	•813 •909		102.058
109.227	25.251	20.981	9.887	4.661	1.436	•:808 •803		105.767
114.029	25.248	20.987	9.860	4.629	1.436	•798		110.394 115.222
118.189	25.243	20.988	9.845	4.603	1.434	• <del>-794</del>		119.406
123.380	25. 235	20.985		4.573	1.430	•:790	-	124.625
128.796	25.224	20.977	9.835	4.545	1.426	•:786		130.071
133.490	25.214	20.968	9.841	4.522	1-422	• <b>783</b>		134.791
139.345	25 • 200	20.954	9.857	4.497	1.418	•78 O		140.679
144.419	25.188	20.941	9.877	4.477	1.415	•778		145.780
150.749	25 • 172	20.921	9.909	4.455	1.411	•775		152.145
157.352	25.156	20.900	9.948	4 • 434	1-497	•773		158.784
163.072	25.142	20.881	9.986	4.417	1.404	•772		164.535
170.205	25.126	20.856	10.038	4.399	1-400	·• 77 0		171.709
177.645	25-109	20.830	10.097	4.382	1.395	<b>.</b> 769		179.189
184.086	25 <sub>•</sub> -095	20.80-7	10.149	4.368	1.391	•:767		185.665
192.116	25•079	20.780	10.217	4.353	1.386	• 766		193.740
200•485	25 <u>•</u> 063	20.751	10.289	4.• 338	1.382	<b>-•:7</b> -65	1.112	202-155

MACH NO = 20.00 CONE ANGLE = 6.00 ANGLE OF ATTACK = 10.00

		P /	P FREE-S	TREAM A	T PLANE	ANGLES		
L/RN	0.	30.	69.	90.	120.	150.	180.	S/RN
				300		2,00	2000	ο,
.729	97.948	90.656	73.042	53.754	38.976	30.488	27.797	1.297
.857	64.720	59.452	46.894	33.594	23.762	18.262	16.550	1.427
1.057	53.922	49.281	38.372	27.098	18.968	14.528	13.170	1.629
1.389	48.951	44.577	34.482	24.415	17.356	13.538	12.372	1.962
1.804	43.397	39.392	30.239	21.459	15.576	12.574	11.705	2.380
2.302	38.238	34.414	26.054	18.472	13.735	11.558	11.041	2.881
2.875	34.161	30.324	22.432	15.752	11.959	10.616	10.419	3.457
3.508	31.294	27.356	19.670	13.563	10.268	9.568	9.743	4.193
4.181	29.501	25.334	17.618	11.800	8.908	8.542	8.953	4.770
4.876	28.556	24.054	16.135	10.472	7.833	7.791	8.202	5.468
5.577	28.262	23.330	15.086	9.480	6.971	7.033	7.596	6.173
6.275	28.468	23.923	14.347	8.718	6.292	6.479	7.102	6.875
6.963	29.003	23.029	13.834	8.128	5.765	6.010	6.665	7.567
7.635	29.762	23.259	13.489	7.669	5.348	5.616	6.269	8.243
8.289	30.568	23.641	13.265	7.305	5.006	5.290	5.917	8.900
8.921	31.719	24.126	13.132	7.010	4.717	5.021	5.620	9.536
9.531	32.936	24.697	13.067	6.766	4.468	4.797	5.376	10.149
10.117	34.308	25.356	13.057	6.562	4.252	4.608	5.179	10.739
10.681	35.791	26.115	13.092	6.388	4.064	4.446	5.020	11.306
11.224	37.323	26.974	13.165	6.241	3.899	4.305	4.889	11.852
11.749	38.842	27.926	13.269	6.115	3.753	4.180	4.778	12.380
12.259	40.292	28.956	13.399	6.007	3.620	4.068	4.682	12.892
12.756	41.629	30.045	13.550	5.915	3.499	3.966	4.595	13.392
13.244	42.818	31.176	13.7-21	5.837	3.387	3.872	4.517	13.882
13.726	43.833	32.326	13.909	5.770	3.280	3.784	4.444	14.367
14.206	44.654	33.476	14.116	5.713	3.179	3.701	4.377	14.850
14.687	45.268	34.605	14.342	5.665	3.081	3.622	4.315	15.333
15.172	45.569	35.691	14.589	5.624	2.985	3.547	4.258	15-822
15.667	45.860	36.714	14.860	5.589	2.891	3.473	4.207	16.319
16.176	45.858	37.647	15.159	5.561	2.797	3.401	4.161	16.831
16.703	45.689	38.462	15.493	5.539	2.704	3.330	4.120	17.361
17-256	45.381	39.121	15.867	5.523	2.609	3.258	4.086	17.916
17.838	44.963	39.583	16.289	5.514	2.514	3.184	4.058	18.502
18.459	44.475	39.811	16.766	5.512	2.418	3.108	4.036	19.126
19.120	43.4	39.785	17.304	5.518	2.321	3.028	4.020	19.791
19.814	43.584	39.508	17.896	5.533	2.227	2.945	4.009	20.489
20.551	43.336	38.986	18.542	5.556	2.137	2.857	3.999	21.230
21.340	43.264	38.252	19.237	5.590	2.050	2.763	3.988	22.523
22.192	43.339	37,386	19.969	5.635	1.969	2.661	3.972	22.88D
23.122	43.507	36.505	20.708	5.691	1.896	2.551	3.947	23.815
24.143	43.703	35.720	21.399	5.759	1.833	2.434	3.908	24.842
25.270	43.871	35.099	21.964	5.836	1.780	2.311	3.850	25.974
25.485	43.997	34.698	22.320	5.920	1.741	2.188	3.774	27.196
27.788	44.089	34.494	22.450	6.010	1.713	2.070	3.680	28.507
29.181	44.139	34.429	22.396	6.115	1.696	1.960	3.574	29.988

## NSHC/HOL/TR 75-45

MA	CH NO =	20.00	CONE ANGL	E = 6.0	0 ANGL	E OF ATT	ACK = 1	0.00
		P /	P FREE-ST	REAM AT	PLANE	ANGLES		
L/RN	0.	30.	60•	90•	120.	150.	180.	S/RN
30.382	44.110	34.438	22.254	6.216	1.690	1.878	3.481	31.115
31.869	43.949	34.481	22.001	6.360	1,690	1.792	3.367	32.610
33.412	43.704	34.555	21.689	6.533	1.700	1.717	3.254	34.162
35.016	43.452	34.664	21.349	6.738	1.718	1.653	3.145	35.774
36.685	43.262	34.791	21.006	6.963	1.744	1.598	3.039	37.453
38.425	43.116	34.915	20.682	7.188	i.776	1.551	2.939	39.202
40.237	43.028	35.015	20.386	7.395	1.810	1.510	2.845	41.024
42.125	42.998	35.085	20.113	7.575	1.844	1.476	2.756	42.922
44.088	43.027	35.129	19.857	7.727	1.875	1.445	2.673	44.896
46.127	43.111	35.162	19.609	7.847	1.905	1.418	2.596	46.947
48.243	43.227	35.193	19.368	7.935	1.931	1.393	2.524	49.974
50.436	43.355	35.225	19.135	7.997	1.955	1.370	2.456	51.279
52.706	43.480	35.259	18.910	8.036	1.978	1.349	2.393	53.562
55.058	43.595	35.300	18.695	8.056	2.000	1.330	2.334	55.927
5-7.493	43.694	35.355	18.488	8.061	2.020	1.313	2.280	58.375
5:0.016	43,77=2	35.426	18.290	8.054	2.040	1.297	2.229	60.912
62.632	43.829	35.513		8,034	2.059	1.281	2.182	63.543
65.347	43.871	35.614	17.916	8.003	2.075	1.267	2.137	66.272
68.166	43.902	35.722		7.961	2.088	1.253	2:096	69.107
71.097	43.929	35.835		7.910	2.099	1.240	2.056	72.054
74.145	43.954			7.850	2.106	1.226	2.018	75.119
77.316	43.979	36.056		7.784	2.112	1.213	1.981	78.308
80.618	44.005			7.714	2.115	1.199	1.945	81.528
84.056	44.030	36.248		7.642	2.119	1.185	1.910	85.085
87.637	44.056		-	7.569	2.123	1.171	1.875	88.585
91.367	44.078			7.497	2.128	1.157	1.841	92.436
95.252	44.095			7.425	2.132	1.144	1.808	96.342
99.299	44.106			7.355	2.135	1.132	1.776	100.411
103.515	44.111			7.287	2.136	1.121	1.745	104.551
107.907	44.109			7.223	2.132	1.110	1.715	109.267
112.484	44.100			7.161	2.124	1.099	1.688	113.669
117.253	44.087			7.103	2.113	1.089	1.661	
12-2 - 221	44.068			7-049	2.101	1.079		123.460
127.399	44.046			6.999	2.089	1.069	1.613	128.667
132.794	44.021			6.952	2.078	1.060		134.091
138.416	43.994		and the second s	6.910	2.068	1.052		139.744
144.273	43.966		-	6.872	2.059	1.044		145.633
150.374	43.937			6.837	2.049	1.038	1.535	
156.730	43.908			6.806	2.038	1.031		158.159
163.349	43.879			6.778	2.026	1.026	1.504	164.815
170.242	43.850			6.753	2.014	1.020	1.491	
177.417	43.822			6.730	2.002	1.015	1.479	178.960
184.886	43.794			6.710	1.992	1.011	1.468	186.470
192.659	43.766			6.691	1.981	1.007	1.457	194.286
20-0 - 745	43.739		-	6.674	1.971	1.002	1.448	202.417

MACH NO = 25.00 CONE ANGLE = 6.00 ANGLE OF ATTACK = 10.00

		P /	P FREE-S	TREAM	AT PLANE	ANGLES		
LZRN	0 •	30.	60.	90.	120 •	150.	180.	S/RN
20 1-1/11	0 **	000	<b>0.00</b>	,,,,	1200	2700	2001	
-730	152,229	140.865	113.431	83.400	60.421	47.223	43.052	1.297
.889	89.901	82.397	64.593	45.909	32.236	24.651	22.300	1.460
1.106	82.541	75.361	58.569	41.355	28.968	22.200	20.132	1.678
1-450	74.544	67-829	52.386	37.090	26.434	20.707	18.967	2.024
1.877	65.831	59.700	45.732	32.422	23.594	19.159	17.898	2.453
2.386	58.009	52.015	39.228	27.799		17.597	16.869	2.965
3.070	51.060	45.102	33.081	23.097	17.530	15.839	15.721	3.653
3.714	47.122	48.949		19.905	15.056	14-177	14.594	4.300
4.390	44.739	38.163	26.222	17.383	13.103	12.664	13.352	4.980
5.081	43.566	36.430	24.131	15.504	11.547	11.455	12.255	5.675
5.775	43.321	35.484	22.650	14.085	10.305	10.483	11.380	6.372
6.461	43.766	35.127	21.603	12.989	9.333	9.667	10.646	7.062
7.244	44.857	35.254	20.778	12.018	8.466	8.87.2	9.883	7.850
7.896	46.083	35.679	20.317	11.380	7.883	8 • 31.2	9.298	8.505
8.526	47.522	36.291	20.018	10.867		7.850	8.790	9.139
9.133	49.209	37.035	19.839	10.447		7.467	8.367	9.749
9.716	51.166	37.907	19.753	10-097		7.148	8.022	10.335
10.274	53.353	38.925	19.742	9.802		6.876	7.743	10.897
10.897	56.090	40.310	19.808	9.512		6.606	7.481	11.523
11.408	58.485	41.664	19.920	9.302		6.405	7.295	12.037
11.901	60.829	43.154	20.072	9.123		6.226	7.134	12.532
12.379	63.048	44.757	20.258	8.970		6.065	6.992	13.012
12-844	65 • 082	46.445	20.473	8.838		5.917	6.864	13.480
13.300	66.882	48.192	20.714	8.725		5.781	6.747	13.939
13.824	68.642	50.265	21.026	8.612		5.634	6.621	14.466
14.270	69 • 828	52.041	21.319	8.530		5.515	6.522	14.914
14.716		53-7-8-5	21.638	8-458		5.402	6-431	15.363
15.167	71.249	55.470	21.985	8 • 395		5.294	6.347	15.816
15.624	71.492	57.066	22.366	8.341		5.189	6.270	16.276
16.093	71.450	58.538	22.787	8 • 294		5.086	6.202	16.747
16.661	71.085	60.038	23.339	8.249		4.967	6.132	17-31-8
17.171	70.535	61.073	23.877	8.218		4.864	6.082	17.831
17.708	69.806	61.814	24.486	8.196		4.759	6.040	18.372
18.279	68.958	62.207	25.181	8 • 1 8 3		4.651	6.007	18.945
18.885	68.106	62.213	25.970	8 • 1 80	3.466	4.538	5.981	19.554
19.518	67.406	51.820	26.846	8.190	3.328	4.421	5.963	20.192
20.303	66.900	60.853	27.981	8.217		4.276	5.945	20.980
21.023	66.777	59.641	29.052	8.255		4.142	5.930	21.705
21.799	66.906	58.205	30.197	8.309		3.997	5.908	22.485
22.642	67.212	56.729	31.384	8.380	2.802	3.840	5.876	23.332
23.564	67.590	55.376	32.539	8.466		3.67.0	5.826	24.259
24.580	67.933	54.261	33.545	8.564		3.489	5.753	25.281
25.874	68.230	53.395	34.339	8 • 6 88		3.274	5.635	26.582
27.044	68.424	53.043		8.797		3.098	5.510	27.759
28.284	68.572	52.937	34.601	8 • 918	2.444	2-932	5.366	29.005

MACH NO = 25.00 CONE ANGLE = 6.00 ANGLE OF ATTACK = 10.00

110	.011 110 =	23.30	OUNC AND			2 0, 7,,	- A	. 5 4.0 0
		Р/	P FREE-S	TREAM AT	PLANE	ANGLES		
L/RN	0.	30.	60.	90•	120.	150.	180.	SZRN
20 (4-0	CO 570	E0 077	74 770	0.000	0 / 04	0 770	<b>5</b> 000	70 744
29.612	68.578	52.973	34.338	9.069	2.421	2.778	5.208	30:-341
31.033	68.330	53.082	33.895	9.266	2.413	2.638	5.040	31.769
32.506	67.902	53.248	33.350	9.512	2.421	2.517	4.870	33.251
34.298	67.390	53.499	32.652	9.871	2.448	2.397	4 • 675	35.053
35.902	67.032	53.747	32.060	10.230	2.486	2.311	4.513	36.665
37.573	66.770	53.979	31.514	10.599	2.534	2.238	4 • 357	38.345
39.314	66.508	54.163	31.030	10.940	2.586	2.175	4.208	40.096
41.128	66.548	54.283	30.597	11.235	2.637	2.120	4.066	41.920
43.014	66.598	54•348	30.193	11-478	2.684	2.072	3.932	43.816
45.305	66.779	54.392	29.740	11-692	2.733	2.022	3.785	46.120
47.347	66.988	54.424	29•362	11.817	2.769	1-983	<b>3.</b> 669	48-173
49.461	67.207	54.454	28.997	11.900	2.801	1-947	3.559	50.299
51.647	67.415	54.487	28.645	11.947	2.831	1.914	3.458	52.498
53.999	67.601	54.535	28.310	11.964	2.860	1.884	3.364	54.772
56.249	67.754	54•60 <del>:</del> 7	27•991	11.960	2.888	1.857	3.277	57.124
59.083	67,881	54-729	27.639	11.931	2.918	1.827	3.185	59.974
61.607	67.949	54.866	27.353	11.885	2.942	1-804	3.111	62.512
64.225	67.992	55 • 0 25	27.080	11.821	2.963	1.783	3.043	65:144
66.943	68.024	55.197	26.815	11.740	2.979	1.762	2.979	67-877
69.766	68.053	55.375	26.559	11.642	2.990	1.741	2.918	70.716
72.702	68.083	55,556	26.311	11.530	2.997	1-720	2.860	73.668
76.276	68.123	55.760	26.033	11.392	3.000	1.695	2.793	77.262
79.474	68.165	55.921	25.806	11.270	3.002	1.673	2.738	80.478
82.803	68.210	56.063	25.595	11.148	3.005	1-651	2.682	83-825
86.267	68.256	56.184	25.403	11.025	3.009	1.629	2.628	87308
89.873	68.297	56.281	25.235	10.904	3.014	1.608	2.575	90.934
93.626	68.329	56.357	25.093	10.785	3.019	1.587	2.523	94.708
98.200	68.353	56.419	24.963	10-651	3.021	1-564	2.464	99.307
102-295	68.360	56.452	24.881	1-0 - 541	3.015	1,545	2.415	10-3.424
106.558	68.356	56.468	24.827	10.437	3.003	1.526		107.710
110.996	68.342	56.470	24.801	10.339	2.984	1.508		112.173
115.618	68.317	56.459	24.801	10:248	2.961	1.490		116.829
120.430	68.285	56.436	24.828	10.163	2.938	1.472		121.659
126.297	68.242	56.398	24.892	10.074	2.915	1.453		127.558
131.550	68.201	56.355	24.974	10.005	2.897	1.437		132.840
137.020	68.158	56.303	25.080	9.943	2.880	1.422		138.341
142.716	68.113	56.244	25.209	9.888	2.862	1.409		144.067
148.644	68.068	56.178	25.360	9.840	2.841	1.397		150.029
154.815	68.024	56.106	25.532	9.798	2.817	1.386		156.234
162.333	67.972	56.016	25.754	9.756	2.790	1.373		163.793
169.059	67.928	55.933		9.724	2.769	1.364		170.556
176.055	67.885	55.848	26.187	9.697	2.749	1.355		177.591
183.332	67.842	55.759	26.423	9.674	2.730	1.346		184.907
190.897	67.799	55.669	26.671	9.654	2.711	i-• 338		192.514
200.102	67.751	55.562	26.971	9.634	2.689	1.330		201.770
	,		/	2. 20.4		- + O O O	20,00	_ 0 2 4 1 , 0

MACH NO = 30.00 CONE ANGLE = 6.00 ANGLE OF ATTACK = 10.00

				STREAM -A				
L/RN	9.	30.	60•	90•	120.	150.	180.	S/PN
•73 G	218.573	202.236	162.795	119.636	86.621	67.691	61.681	1.298
	129.065		92.686	65.842	46.210	35.321	31.949	1.460
	118.477		84.033	59.308	41.524	31.809	28.843	1.678
	106.934	97.291	75.117	53.162	37.871	29.658	27.160	2.023
1.954		83.660	63.964	45.306	33.063	27.018	25.336	2.531
2.475	81.447	72.817		38.724	29.060	24.819	23.885	3.054
					25.062		22.465	3.647
3.064	73.046	64.516	47.312	33.029		22.637		4.402
3.815	66.612	57.707	40.802	27.761	20.993	19.860	20.545	
4.492	63.455	53.941	36.835	24.297	18.297	17.755	18.771	5.083
5.181	61.962	51.617	33.974	21.719	16.141	16.085	17.249	5.775
5.869	61.745	58.371	31.943	19.761	14.424	14.730	16.033	6 4 4 6 7
6.661	62.653	49.922	30.310	18.031	12.892	13.416	14.838	7.263
7.322	64.059	50.157	29.369	16.905	11.888	12.479	13.919	7 • 928
7.964	65.809	50.771	28.730	16.019	11.078	11.699	13,095	8.574
a • 684	68.244	51.788	28.260	15.199	10.299	10.959	12.278	9.298
9.276	70.737	52.854	28.029	14.630	9.735	10.442	11.707	9.892
9.842	73.618	54.107	27.920	14.153	9.250	10.008	11.243	10.461
10.383	76.813	55.574	27.913	13.748	8.830	9.637	10.866	11.006
10.986	80.773	57.571	28.007	13.351	8 • 4 B 8	9•267	10.508	11.612
11.480	84.213	59.517	28.161	13.063	8.092	8.991	10.252	12.109
11.956	87.566	61.653	28.369	12.817	7.809	8.744	10.029	12.588
12.492	91 • 235	64.340	28.668	12.573	7.512	8 • 48 6	9.799	13.127
12.939	94.079	66.767	28.964	12.396	7.279	8.285	9.621	13.576
13.377	96.584	69.269	29.294	12.242	7.06U	8.099	9.458	14.016
13.879	99.014	72.232	29.719	12.088	6.819	7.897	9 - 284	14.521
14.307	100.637	74.767	30.117	11.974	6.622	7.735	9.146	14.951
14.734	101.814	77.260	30.550	11.873	6.431	7.580	9.019	15.381
15.165	102.545	79.674	31.020	11.784	6.243	7.432	8-90-3	15.814
15.676	102.860	82.336	31.626	11.694	6.027	7.264	8.780	16.328
	102.707	84.430	32.204	11.625	5.843	7.124	8 • 687	16.781
	102.200	86.282		11.567		6.984	8.604	17.248
	101.210	38.033		11.510	5.439	6.821	8 • 52-2	17.820
	100.076	89.089		11.473		6.578	8 • 454	18.337
18.221	98.778	89.653		11.448	5.053	6.530	8-417	18.887
18.799		89.663	36.613	11.438	4.857	6.376	8.381	19.468
19.505	96.298	88.939	38.054	11.446	4.632	6.189	8.350	20.179
20.147	95.678	87.676	39.433	11.471	4.444	6.019	8.328	20.823
20.830	95.477	85.892	40.948	11.515	4.261	5.838	8.306	21.510
21.691	95.720	83.401	42.869	11.594	4.058	5.606	8.272	22.376
22.496	96.217		44.599	11.686	3.896	5.389	3.228	23.186
23.376	96 - 825	79.190	46.300	11.799	3.749	5.154	8 • 161	24.071
24.344	97.378	77.518		11.928	3.622	4.902	8.064	25.044
25.565	97.858	76.216	49.025	12.084	3.502	4.604	7.989	26.272
26.660	98-170	75.675		12.216		4.360	7.746	27.373
27.814	98.4.33	75.513		12.359		4.129	7.55.8	28.533
C1 + 1/2 7	200	: > • > 1 3	774761	T C 4 O 7 7 7	04000	7 4 16 7	, 4.2 2.0.	20000

MACH NO = 30.03 CONE ANGLE = 6.00 ANGLE OF ATTACK = 10.00

		P /	P FREE-S	TREAM AT	PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150.	180.	SZRN
			• • •					
29.257	98.508	75.603	49.111	1-2.572	3.320	3.878	7.314	29.984
30.604	98.155	75.800	48.449	12.820	3.301	3,679	7.087	31.338
32 5 9 4 0	97.490	76.074	47.601	13.149	3.304	3.501	6 • 850	32.782
33.786	96.585	76.491	46.523	13.648	3.338	3.326	6.576	34.538
35.349	96.120	76.884	45.612	14.162	3.389	3.199	6.344	36.109
36.977	95.699	77.264		14.705	3.455	3,092	6.119	37.746
38.674	95.432	77.562	44.063	15.218	3.529	3.001	5.902	39.452
40.743	95.319	77,773	43.329	15.727	3.615	2.903	5.660	41.533
42.593	95.412	77.855	42.749	16.075	3.681	!•:84D	5.464	43.393
44.513	95.558	77.896	42.188	16.337	3.738	2.778	5.278	45.324
45.840	96.034	77.931	41.552	16.540	3.795	2.711	5.076	47.664
48.910	96.367	77.955	41.024	16.646	3.837	2.659	4.916	49.746
51.050	96.679	77.984	40.518	16.702	3.877	2.611	4.767	51.897
53.262	96.952	78.038	40.034	16.717	3.914	2.568	4.630	54.121
55.937	97.201	78.151	39.503	16.696	3.957	2.522	4.484	56-811
58.317	97.342	78.300	39.076	16.548	3.992	2.486	4.370	59-204
60.781	97•423	78.495	38.673	16.571	4.024	2.453	4.265	61.682
63.772	97.474	7-8.763	38.227	16.448	4.054	2.417	4.152	64.689
66•44B	97 - 505	79.013	37.860	16.312	4.071	2.388	4.062	67.372
69.212	97.535	79.274	37.506	16-152	4.082	2.358	3.976	70.159
72.093	97.570	79.539	37.161	15.975	4.086	2,329	3.893	
75.600	97.526	79.836	36 <b>.</b> 7 <del>-</del> 73	15.761	4.085	2,293	3.799	76.582
78.738	97 • 689	8 0.970	36.454	15.577	4 • 08:3	2-261	3.719	
82.002	97.760	80.275	36.156	15.392	% • 0.8 <del>°</del> 3	2.229	3.640	83.019
85·977	97•:844	80.473	35.845	15.178	4.088	2-192	3.550	
89.534	97.907	80.608	35.616	14.998	4 • 093	2.161	3.473	
93 • 235	97.955	8:0.711	35.426	14.822	4.096	2.131	3.398	
97.742	97.990	80.795	35.255	14.625	4.092	2.097	3.314	
101.776	98.000	80.838	35.152	14.465	4 • 07:7	2• <b>0</b> 69		102.902
105.974	97.992	80.857	-	14.314	4.051	2.041		107.123
1.10 • 343	97.967	8.0 - 855	35.057	14.173	4.018	2-013		111.516
115.666	97.921	80.832		14.022	3.975	1.981		116.869
120.431	97.872	80.794	35.150	13.904	3.942	1.955		121.660
125.392	97.815	80.743	35.247	13.797	3.914	1.929		126.648
131.436	97.744	80.666		13.687	3 • 88 3	1.902		132.725
136.846	97.681	80.587	35.581	13.605	3.855	1.881		138.165
142.476	97.617	80.497	35.788	13.533	3.822	1.861		143.827
148.335	97.553	80.398	36.027	13.471	3.784	1 •≡842		149.717
155.469	97 478	80.271	36.341	13.410	3.739	1.822		156.891
161.851	97.416	80.154	36.638	13.366	3.703	1.806		163.308
168.488	97.353	80.031	36.958	13.330	3.671	1.791		169.981
176.564	97.281	79-881	37.357	13.295	3.637	1 • 775		178.102
183.783	97.220	79.749	37.718	13.272	3.607	1.762		185.361
191.285	97.159	79.614	38.094	13.253	3.577	1.750		192.904
200.407	97.039	79.456	38.548	13-235	3.544	1.737	2.513	202.076

МД	CH NO =	3.50	CONE ANGL	E = 7.0	0 ANGL	E OF ATT	ACK = 10	• 0 0
		p /	P FRFF-S1	TRFAM AT	PLANE	ANGLES		
L/RN	0•	30 •	60.	90•	120.	150.	180.	S/RN
								4 0/0
•683	4.380	4.114	3.454	2.696	2.081	1.708	1.586	1.249
.754	3.635	3.403	2.829	2.182	1.665	1.355	1.255	1.323 1.336
.816	3.076	2.870	2.365	1.804	1.363	1.102	1.018 .846	1.500
• 929	2.540	2.453	2.002	1.510	1.134	•915	.813	1.682
1.110	2.598	2.406	1.946	1.454	1.087	•878 •868	.874	1.844
1.271	2.589	2.396	1.932	1.441	1.074	.871	.809	2.030
1.455	2.565	2.371	1.911	1.429	1.072 1.064	.881	•826	2.319
1.742	2.507	2.318	1.865	1.398	1.050	•886	•839 •020	2.567
1.988	2.457	2.270	1.823	.1.368 1.333	1.033	•893	.858	2.843
2.262	2.403	2.217	1.773	1.303	1.018	.897	.874	3.148
2.565	2.364	2.165	1.719 1.668	1.251	.994	.899	• 886	3.597
3.011	2.320	2.119	1.638	1.221	.974	899	-895	3.967
3.378	2.297	2.092	1.610	1.194	953	.897	•905	4.364
3.772	2.284	2.073 2.059		1.163	.927	.891	.916	4.934
4.337	2 • 277 2 • 280	2.054		1.143	.911	.887	. 922	5.391
4.791 5.268	2-286	2.055		1.125	.898	.883	• 924	5.872
5.7.7.0		2.059		1.111	.887	.880	•926	6.377
6.474		2.068		1.094	.874	.880	•929	7.086
7.027	2.328	2.078		1.084	.865	.882	•933	7.644
7.602	2.343	2.088		1.076	<b>.</b> 857	.884	• 939	8.223
8.401	2:.3.64	2.103		1.066	.848	.887	•949	9.028
9.025	-	2.114		1.060	.842	889	•956	9.657
9.670	2.392	2.126		1.055	•837	.892	• 362	10.306
10.561		2.140	1.539	1.049	.832	•895	• 968	11.205
11.255		2,150	1.542	1.045	.828	.897	•972	11.903
11.959	2 • 4-30	2.169		1.042	.824	* 899	•975	12.623
12.706	2 • 439	2.168		1.049	.821	.901	•978	13.365 14.390
13.723	2.450	2.179		1.037	-817	•903	.982	15.185
14.512		2.186		1.036	.814	•905	•985 •987	16.003
15.324		2.192		1.034	•812	•906 •908		17.133
16.445		2.200		1.034	•809	•909	.994	18.009
17 . 315		2.205		1.033	•807 •06	•910	•996	18.911
18,211	2.477	2.209		1.033	•806 •804	.911	.998	19.841
19.133		2.213		1.033	•803	• 91 2	1.000	21.124
20.407		2.217		1.034 1.034	•802	.912	1.001	22.121
21-39.7		2.220		1.034	.802	.913	1.002	23.150
22.418		2.222		1.035	.801	.913	1.003	24.573
23.830		2 • 22 <u>5</u> 2 • 22 7		1.035	.801	. 314	1.003	25.680
24.929		2.228		1.036	.801	.914	1.004	26.824
26.064		2.229		1.037	-301	.914	1.004	28.005
27.237 28.861		2.23		1.037	-801	.914	1.004	29.642
30.127				1.037	.802	•915	1.004	30.918
31.436		2-231		1.038	.802	• 915	1.004	32.236
							•	

М	ACH NO =	3.50	CONE ANGL	E = 7.00	ANGL	E OF ATT	ACK = 1	1-0 • 0 0
		P /	P FREE-ST	TREAM AT	PLANE	ANGLES		
L/RN	0.	30 .	60.	90.	120.	150.	180.	SZRN
		000	004	<b>70 0</b>	120	1900	100.	37 KI
33.250	2.488	2.231	1.610	1.038	-802	•915	1.004	34.064
34 - 654		2.231	1.612	1.039	.803	915	1.004	35.489
36.127		2.231	1.615	1.039	.803	•916	1.003	36.962
38.154	2.487	2 230	1.619	1.039	.804	•916	1.003	39.005
39.735	2.486	2.230	1.622	1.039	-805	• 91 6	1.003	40.598
41.370		2.229	1.524	1.039	• <b>:80</b> 5	•916	1.002	42.245
43.061	2.485	2.228	1.627	1.039	-806	.917	1.002	43.948
45.405	2•485	2.227	1.631	1 4 04 0	-806	917	1.002	46.310
47.234		2.227	1.533	1.040	<b>-</b> 807	• 917	1.001	48.152
49.124		2.226	1.635	1.039	.807	• 918	i.001	50.057
51.745		2.225	1.638	1.039	808	•918	1.001	52.698
53.789		2.225	1.640	1.039	808	• 91 9	1.001	54.757
55.902		2.224	1.641	1.039	• <sup>-</sup> 809	•-91 9	1.001	56.886
58.088		2.224	1.642	1.039	.809	•919	1.001	59.088
61.117		2.223	1.644	1.039	·•: <b>81</b> 0	•920	1.001	62.148
63.479	=	2.223	1.644	<b>1</b> • 039	.810	•920	1.001	64.520
65.921		2.222	1.645	1.039	• 811	• 921	1.001	66.980
69.307		2.222	1.645	1 • 040	.811	•921	1.001	70.392
71.947		2.222	1.645	1.049	.812	•922	1.001	73.052
74.677		2.221	1.645	1.040	812	• 922	1.001	
77.500		2.221	1.644	1.041	.812	• 92 3	1.001	78.646
81.413		2.221	1.643	1.042	<b>-813</b>	• 923	1.001	82.588
84.464		2.221	1.643	1-042	813	.924	1.001	85.662
87.619		2.221	1.642	1.043	-814	• 924	1.001	
91.994		2.221	1.640	1.044	814	•924	1.001	93.249
95.406 98.934		2.221	1.639	1.045	•814	• 925	1.001	
		2.221	1.638	1.045	·815	•925		100.240
103.826 107.641		2.221	1.636	1.048	815	•925		105.169
111.587		2.221 2.222	1.635	1.049	·815	•926		109.013
115.668		2.222	1.633 1.632	1.050 1.051	•816 •846	• 926		112.989
121.328	2.492	2.222	1.632	1.051	•816 •46	• 926		117.100
125.742		2.223	1.628	-	•816	•926	-	122.803
130.309	2.492	2.223	1.627	1.054 1.055	•.816 •.846	•927		127.251
136.642	2.492	2.223	1.625	1.055	•816 •816	•927		131.851
141.584		2.224	1.623	1.057	•:816			138.232
146.695	2.493	2.224	1.622	1.057	•816	• 927		143.211
151.982	2.493	2.224	1.620	1.060	•816	• 927		148.360
159.317	2.493	2.225	1.618	1.061	•816	• 927 • 92-8		153.687 161.077
165.039		2.225	1.617	1.062	•816	• 928		166.842
170.959	2.493	2.225	1.617	1.063	• 816	• 928	-	172.807
179,172		2.226	1.613	1.065	• 81.6	• 92.8		181.081
185.580	2.493	2.226	1.612	1.056	-816	• 928		187.538
192.21-0		2.225	1.610	1-067	•816	. 928		194.217
201.408	2.493	2.225	1.609	1.068	816	•928		203.484

MAC	H NO =	5.00	CONE	ANGLE	=	7 ~ 00	At	NGLE OF	ATT	ACK = 1	0.00
				<b>-</b> -							
	_			E-STR						4.00	S/RN
<b>L/RN</b>	0 •	30 •	8	50•	90	•	120	. 150	j •	180.	2) KN
.708	7.465	6.965	5.7	738	4.36	.n	3.27	0 2.6	26	2.417	1-274
.780	6.064	5.637	4.5	595	3.44	4	2.55	0 2.0		1.862	1.349
•876	6.528	4.186	₹, 1	361	2.47	3	1.80	1 1.4		1.295	1.447
1-054	4.408	4.063	3.2	236	2-35	7	1.70	5 1.3		1.227	
1.280	4.280	3.935	3.1	120	2.27	<b>'</b> 6	1.66	0 1.3		1.209	1.854
		3.815		016			1.61			1.201	2.050
1.768		3.634		861			1.55			1.189	2.346
2.103		3.453					1.48				2.682
2.477							1.41		14	1.170	3.060
2.890		3.149					1.34		85	1.157	2.682 3.060 3.476 3.812
3.224	3.430	3.076	2.	325	1.66	56	1.28	3 1.1	59	1.147	3.812
	3.375	3.906	2.2	236	1.58	3	1.21	1 1.1	20	1.131	4-289
4.202	3.352	2.964	2.	171	1.51	.2	1.21	1 1.0	79	1.108	4.797
4.733	3.354	2.946	2.	124	1.49	54	1.10	2 1-0	43	1.081	5.332
5.289	3.376	2.947	2.	091	1.40	18	1.06	0 1.0	13	1.056	5 893
5.721	3.402	2.95.7	2.	075	1.37	79	1.03	2 • 9:	95	1.041	6.328
6.316	3.448	3.006 2.964 2.946 2.947 2.957 2.981	2.	062	1.34	8	.99	9 •9	75	1.026	6 • 927
	3.502	2-981 3-015	2.	กรั้ว	1 4 52	,5	- 47	11	54	1.001/	7 . 240
7.571	3.561	3.855	2.	058	1.30	13	• 94	6 •9	44	1.010	8.191
8.233	3.620	3.100	2.	065	1.28	36	• 92	5 • 9	32	1.004	8 • 858
8-746	3.665	3.135	2.	073	1.27	75	•91	1. •9	24	•999	
9.453	3.721	3.182	2.	086	1.2	54	-89	4 9.	14	• 994	
10.190	3.774	3230	2.	102	1.25	54	• 87	8 • 9	06	•989	10.830
10.958		3.275	2.	121	1.2	<b>47</b>	• 86	3 •⁻9			11.604
11.760	3.867	3.318	2.	140	1.24	+2	•84	9 •8	94		12.412
12.385		3.348							90		13.042
13.254		3.385				37			85		13.917
14.161		3.418							81	•996	14-831
		3:• 448							7.7	1.000	15.767
16.041	4.008	3.475	2•	243	1 • 2				73	1.004	16.726
		3.492			1.2				70	1.007	17.460
	4.029				1.2				65	1.010	
18.792	4.035	3.528	2.	298	1.2				61	1.013	19.497
	4.039										20.562
20-942	4.041	3.549		331	1.2		•76			1.016	21-664
21.787	4.042	3553		343	1.2		•75			1.017	22.514
22.947	4.043	3.556		357	1.2		•75		46	1.018	23.683
24.149	4.043	3.556		371	1.2		• 75			1.018	24.894
25.395	4.042	3.555		385	1.2		• 75		40	1.018	26 • 150 27 • 452
26.688	4.040	3.553		398	1.02		•75			1.018	
27-689	4.039	3.550		408	1.2		•75		35	1.018	28.461 29.850
29.068	4.036	3.547		421	1.2		•75	-	32 30	1.017 1.016	31-293
30.500	4.033	3.542		434	1.2		•75	-	30	1.015	32-790
31.986	4.029	3-538		446	1.3		•75		28	1.013	34.345
33-529	4.926	3.534	۷.	456	1.3	ひン	• 75	, T • 0	27	7.40.70	0 T # 0T-2

МД	CH NO =	5.00	CONF ANG	LE = 7.0	0 ANGL	E OF ATT	ACK =	10.00
		P /	P FREE-S	TREAM AT	PLANE	ANGLES		
L/RN	9 •	30•	60.	90.	120.	150.	180.	SZRN
						100	1001	21/6/4
34.725	4.024	3.530	2.463	1.308	•752	.826	1.012	35.550
36.373	4.021	3.526	2.472	1.310	•753	.825	1.011	
38.083	4.019	3.522	2.478	1.313	.754	.824	1.010	
39.859	4.018	3.518	2.483	1.315	•755	.823	1.009	
41.702	4.016	3.515	2.487	1.318	• 756	.822	1.008	
43.131	4.015	3.512	2.489	1.320	•757	.822	1.007	
45.100	4.015	3.510	2.489	1.323	.758	.822	1.006	
47.144	4.015	3.507	2.489	1.326	.760	•822	1.005	
49.266	4.015	3.505	2.487	1.329	· 7.61	.822	1.004	
51.469	4.016	3.504	2.484	1.333	•763	.822	1.003	
53.176	4.016	3.503	2.482	1.336	• 7.64	.822	1.003	
55.528	4.018	3.502	2.477	1.341	• 7-65	.823	1.002	56.589
57.971	4.019	3.502	2.472	1.345	•766	• 823	1.002	58.970
60.4506	4.021	3.502	2.466	1.350	• 758	•824	1.001	61.524
63-139	4.023	3.502	2.460	1.355	<b>.</b> :769	-824	1.001	64.177
65.179	4.024	3.503	2.456	1.358	• 7-70	-825	1.000	66.232
67.991	4.0.26	3.504	2.449	1.363	• 7-7-0	•826-	1.000	69.065
70:•-910 73•942	4.029	3.505	2.442	1.367	•771	<b>.</b> 826	1.000	72.006
73.942 77.090	4.031	3.506	2.435	1.372	• 772	·827	. 999	75.061
79.530	4.033	3.508	2.428	1.376	.772	<b>8</b>	• 999	78233
79•530 82≅•894	4•035 4•037	3.510	2.422	1.379	•.773	•828	• 999	80.692
86.388	4.037	3.512	2.415	1.383	• 7.73	• 82 9°	•999	84.081
90.017	4.039	3.514	2.408	1.387	• 7-7 3	• 829	• 998	87.601
93.788	4.042	3.516	2.401	1.390	• 7-73	• 830	• 998	91.257
96 - 711	4.042	3.518 3.520	2.394	1.393	• 773	• 83·0 <sup>1</sup>	• 998	95.056
100.742	4.045	3.520	2.389	1.395	• 7-7 3	.831	•998	98.001
104.929	4.045	3.524	2•382 2•376	1.398	•-7-73	.831	• 998	102.062
109-281	4.048	3.526	2.370	1.400	• 7-7-3	•832	• 997	106.281
113.803	4.049	3.527	2.364	1.403	• 773	• 832		110.665
117.310	4.049	3.52.9	2.360	1.405 1.406	•772	• 83-3-		115.221
122-147	4 • 0.5.0	3.53:0	2.355	1.408	•:7-7-2	• 833		118.755
127.174	4.050	3.532	2.350	1-409	•772 •772	• 8 <del>3</del> 4-		123.628
132.399	4.051	3.533	2.345	1.418	*	834		128.693
137.830	4.051	3.534	2.341	1.412	•772 •772	•834- 075		133.957
142-044	4.051	3.535	2.338	1.412	•772	• 835 935		139.429
147-856	4.051	3.536	2.334	1.413	.772	• 835- • 26		143.675
153.898	4.051	3.536	2.331		•772	• 836- 976		149.530
160 • 179	4.050	3.537	2.328	1.415	•7-7-2	•836 •837		155.613
166.709	4 • 0.50	3.537	2.326	1.415	•772			161.946
171.776	4 • 050	3.537	2.324	1.416	•7.7.2	•837 •837	• 995	168-525
178. • 76.5	4 • : 0 4 9	3.538	2.322	1.416	77.2	•007 •838		173.629
186-032	4.048	3.538	2.321	1.416	•:7:7.2	• 0=> n= • 83-8-		180-671
193.587	4 • 0.4-7	3.537	2.320	1.416	•773	•03 n- •83 8°		187.993
201:•441	4.047	3.537	2.319	1.416	• 7-73	•839=		1°95.604 2:03.518
				<del>-</del>		4037	A 722	<b>で:0 △ ● コチ</b> ロ

MACH NO = 10.00	CONE ANGLE =	7.00	ANGLE OF	ATTACK = 1	0.00
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.725 25.572 23.711 19.197 14.228 10.396 8.181 7.474 1.384 16.951 15.600 12.369 8.927 6.364 4.920 4.469 1.469 1.011 15.180 13.916 10.927 7.819 5.563 4.318 3.934 1.268 14.187 12.964 10.112 7.212 5.136 4.000 3.653 1.579 13.102 11.938 9.256 6.616 4.788 3.810 3.514 2.10943 11.998 10.895 8.381 5.976 4.385 3.592 3.369 2.359 11.038 9.922 7.523 5.354 3.999 3.377 3.228 2.820 10.284 9.156 6.809 4.792 3.621 3.170 3.086 3.318 9.759 8.589 6.249 4.330 3.255 2.947 2.938 3.3951 9.390 6.140 5.744 3.873 2.891 2.676 2.737 4.497 9.261 7.922 5.442 3.576 2.648 2.481 2.568	/RN 292 424 583 842 155 521
.725 25.572 23.711 19.197 14.228 10.396 8.181 7.474 1.854 16.951 15.600 12.369 8.927 6.364 4.920 4.469 1.6011 15.180 13.916 10.927 7.819 5.563 4.318 3.934 1.8268 14.187 12.964 10.112 7.212 5.136 4.000 3.653 1.579 13.102 11.938 9.256 6.616 4.788 3.810 3.514 2.10943 11.998 10.895 8.381 5.976 4.385 3.592 3.369 2.10.359 11.038 9.922 7.523 5.354 3.999 3.377 3.228 2.820 10.284 9.156 6.809 4.792 3.621 3.170 3.086 3.318 9.759 8.589 6.249 4.330 3.255 2.947 2.938 3.3951 9.390 6.140 5.744 3.873 2.891 2.676 2.737 4.497 9.261 7.922 5.442 3.576 2.648 2.481 2.568	424 583 842 155 521 940
.854 16.951 15.600 12.369 8.927 6.364 4.920 4.469 1.011 15.180 13.916 10.927 7.819 5.563 4.318 3.934 1.268 14.187 12.964 10.112 7.212 5.136 4.000 3.653 1.579 13.102 11.938 9.256 6.616 4.788 3.810 3.514 2.12943 11.998 10.895 8.381 5.976 4.385 3.592 3.369 2.2359 11.038 9.922 7.523 5.354 3.999 3.377 3.228 2.820 10.284 9.156 6.809 4.792 3.621 3.170 3.086 3.318 9.759 8.589 6.249 4.330 3.255 2.947 2.938 3.3951 9.390 6.140 5.744 3.873 2.891 2.676 2.737 4.497 9.261 7.922 5.442 3.576 2.648 2.481 2.568	424 583 842 155 521 940
.854 16.951 15.600 12.369 8.927 6.364 4.920 4.469 1.011 15.180 13.916 10.927 7.819 5.563 4.318 3.934 1.0268 14.187 12.964 10.112 7.212 5.136 4.000 3.653 1.0579 13.102 11.938 9.256 6.616 4.788 3.810 3.514 2.12943 11.998 10.895 8.381 5.976 4.385 3.592 3.369 2.2359 11.038 9.922 7.523 5.354 3.999 3.377 3.228 2.2820 10.284 9.156 6.809 4.792 3.621 3.170 3.086 3.318 9.759 8.589 6.249 4.330 3.255 2.947 2.938 3.3951 9.390 6.140 5.744 3.873 2.891 2.676 2.737 4.497 9.261 7.922 5.442 3.576 2.648 2.481 2.568	583 842 155 521 940
1.011       15.180       13.916       10.927       7.819       5.563       4.318       3.934       1.268       14.187       12.964       10.112       7.212       5.136       4.000       3.653       1.679       13.102       11.938       9.256       6.616       4.788       3.810       3.514       2.160       2.160       2.160       2.160       2.160       3.592       3.369       2.160       2.160       2.160       2.160       2.160       3.377       3.228       2.160       3.377       3.228       2.170       3.228       2.170       3.086       3.170       3.086       3.170       3.086       3.170       3.086       3.170       3.086       3.170       3.086       3.170       3.086       3.170       3.086       3.170       3.086       3.170       3.086       3.170       3.086       3.170       3.086       3.170       3.086       3.170       3.086       3.170       3.086       3.170	842 155 521 940
1.268 14.187 12.964 10.112 7.212 5.136 4.000 3.653 1.1579 13.102 11.938 9.256 6.616 4.788 3.810 3.514 2.1579 13.102 11.938 9.256 6.616 4.788 3.810 3.514 2.15943 11.998 10.895 8.381 5.976 4.385 3.592 3.369 2.359 11.038 9.922 7.523 5.354 3.999 3.377 3.228 2.820 10.284 9.156 6.809 4.792 3.621 3.170 3.086 3.318 9.759 8.589 6.249 4.330 3.255 2.947 2.938 3.3591 9.390 6.140 5.744 3.873 2.891 2.676 2.737 4.497 9.261 7.922 5.442 3.576 2.648 2.481 2.568 5.	155 521 940
1.579     13.102     11.938     9.256     6.616     4.788     3.810     3.514     2.1943       1.943     11.998     10.895     8.381     5.976     4.385     3.592     3.369     2.1943       2.359     11.038     9.922     7.523     5.354     3.999     3.377     3.228     2.170       2.820     10.284     9.156     6.809     4.792     3.621     3.170     3.086     3.318       3.318     9.759     8.589     6.249     4.330     3.255     2.947     2.938     3.170       3.951     9.390     6.140     5.744     3.873     2.891     2.676     2.737     4.170       4.497     9.261     7.922     5.442     3.576     2.648     2.481     2.568	521 940
1.943 11.998 10.895 8.381 5.976 4.385 3.592 3.369 2.0359 11.038 9.922 7.523 5.354 3.999 3.377 3.228 2.02820 10.284 9.156 6.809 4.792 3.621 3.170 3.086 3.0318 9.759 8.589 6.249 4.330 3.255 2.947 2.938 3.0318 9.390 6.140 5.744 3.873 2.891 2.676 2.737 4.0497 9.261 7.922 5.442 3.576 2.648 2.481 2.568 5.029	94 D
2.359 11.038 9.922 7.523 5.354 3.999 3.377 3.228 2.628 2.620 10.284 9.156 6.809 4.792 3.621 3.170 3.086 3.086 3.318 9.759 8.589 6.249 4.330 3.255 2.947 2.938 3.318 9.390 6.140 5.744 3.873 2.891 2.676 2.737 4.497 9.261 7.922 5.442 3.576 2.648 2.481 2.568 5.00	
2.820 10.284 9.156 6.809 4.792 3.621 3.170 3.086 3.0318 9.759 8.589 6.249 4.330 3.255 2.947 2.938 3.318 9.390 5.140 5.744 3.873 2.891 2.676 2.737 4.497 9.261 7.922 5.442 3.576 2.648 2.481 2.568 5.00	
3.318 9.759 8.589 6.249 4.330 3.255 2.947 2.938 3.3951 9.390 5.140 5.744 3.873 2.891 2.676 2.737 4.497 9.261 7.922 5.442 3.576 2.648 2.481 2.568 5.	405
3.951 9.390 6.140 5.744 3.873 2.891 2.676 2.737 4. 4.497 9.261 7.922 5.442 3.576 2.648 2.481 2.568 5.	906
4.497 9.261 7.922 5.442 3.576 2.648 2.481 2.568 5.	544
	095
5.052 9.258 7.814 5.223 3.347 2.446 2.322 2.421 5.	654
5.610 9.354 7.793 5.070 3.166 2.276 2.190 2.302 6.	216
6.169 9.526 7.840 4.966 3.020 2.136 2.076 2.203 6.	779
6.725 9.751 7.940 4.901 2.903 2.022 1.977 2.114 7.	339
7.276 10-010 8.081 4.865 2.809 1.927 1.889 2.032 7.	895
7.823 10.288 8.251 4.854 2.733 1.847 1.814 1.957 8.	446
8-364 10-581 8-442 4-861 2-670 1-778 1-750 1-889 8-	990
9-004 10-951 8-689 4-889 2-608 1-704 1-684 1-820 9-	635
9.531 11.270 8.907 4.926 2.566 1.649 1.638 1.773 10.	166
10.052 11.590 9.136 4.974 2.530 1.599 1.598 1.735 10.	691
10.570 11.903 9.375 5.030 2.500 1.553 1.562 1.704 11.	213
11.085 12.197 9.621 5.095 2.473 1.511 1.530 1.679 11.	732
11.601 12.465 9.871 5.167 2.451 1.472 1.500 1.658 12.	252
12.413 12.701 10.120 5.245 2.432 1.436 1.473 1.640 12.	774
12.643 12.900 10.363 5.330 2.417 1.401 1.447 1.624 13.	305
13.177 13.058 10.597 5.421 2.405 1.368 1.422 1.608 13.	840
13.835 13.195 10.857 5.537 2.394 1.328 1.392 1.591 14.	503
14.403 13.265 11.050 5.641 2.389 1.296 1.368 1.578 15.	075
14-993 13-298 11-216 5-752 2-387 1-265 1-344 1-565 15-	669
15.609 13.301 11.350 5.868 2.387 1.233 1.320 1.553 16.	290
16.258 13.282 11.449 5.991 2.391 1.202 1.296 1.542 16.	944
16.944 13.251 11.508 6.120 2.399 1.172 1.271 1.533 17.	635
17.674 13.215 11.526 6.254 2.418 1.142 1.246 1.525 18.	370
18.454 13.179 11.506 6.392 2.425 1.113 1.219 1.519 19.	156
19.289 13.145 11.453 6.533 2.444 1.085 1.192 1.515 19.	997
20.369 13.113 11.362 6.702 2.474 1.054 1.158 1.511 21.	086
21.345 13.097 14.271 6.835 2.503 1.032 1.128 1.507 22.	069
22.397 13.088 11.175 6.956 2.538 1.012 1.097 1.501 23.	130
23.527 13.084 11.085 7.059 2.577 .997 1.065 1.492 24	268
24.709 13.082 11.012 7.139 2.618 .985 1.035 1.480 25.	459
25.934 13.080 10.957 7.194 2.660 .977 1.006 1.464 26	692
27.201 13.074 10.916 7.223 2.702 .972 .979 1.445 27	969
28:514 13:065 10:887 7:231 2:745 :969 :954 1:424 29	292
29.873 13.052 10.867 7.223 2.788 .969 .931 1.402 30	

MA	/CH NO =	10.00	CONE	ANGLE	= '	7.00	ANGL	E OF AT	TACK = :	10.00
1.404	•			EE-STR			PLANE	ANGLES		
L/RN	0.	30.	,	60.	90	• ]	120.	150.	180.	SZRN
31.569	13.032	10.852	7•:	197	2.84		972	•907	1.374	32.4370
33.039	13.015	10.845	-	165	2.88		976	•889	1.352	
34.564	12.998	10.843		126	2.93		983	•873	1.329	
36.146	12.982	10.844		083	2.97		991	•859	1.307	
37.788	12.970	10.848		036	3.02		001	• 847	1.286	
39.491	12.962	10.854	6.9		3.06		012	•836	1.266	
41.259	12.959	10.861		939	3.10:		023	•827	1.247	
43.093	12.960	10.868		890	3.13		035	81-9	1.229	
44.995	12.967	10.876		841	3.16		047	.811	1.212	
47.372	12.979			783	3.20		062	.804	1.193	
49.434	12,993	19.897		735	3.22		073	•798	1.178	
51.571	13.008	10.908	6.6		3.24		084	•793	1.164	
-53.787	13.025	10.920		642	3.25		094	•788	1.151	
56.085	13.043	10.933			3.278		104	.783	1.138	
58.467	13.060				3.28		112	•77-9	.1.127	
60.937	13.077	10.962	6.		3.28		120	• 775	1.116	
63.499	13.092	10.978	-	-	3.29		126	•771	1.106	
66.156	13.106	10.995			3.29		131	.768	1.097	
69.477	13.121	11.014			3 - 29		136	•764	1.086	
72.360	13.132	11.031			3.29		140	.76.1	1.077	
75.352	13.141	11.046		=	3.28		143	• 758	1.069	
78.459	13.148	11.061			3.279		146	•755		
81.686	13.154	11.075			3.272		149	• 753	1.054	
85.038	13.158	11.087		_	3.264		152	•751	1.047	
88.521	13.161	11.097	68		3.25		154	.749	1.041	
92.141	13.162	11.106	6.1	191	3.245		156	.748	1.035	
95.903	13.163	11.114	6.1	174	3.235	5 1.	158	• 747	1.030	
100.613	13.162	11.120	6.1	158	3.222	2 1.	160	• 746	1.024	101-932
104-709	13.160	11.124			3.212	2 1.	162	•746	1.020	106.059
108.967	13.158	11.126			3.201		163	.746	1.016	110.349
1-1-3 - 394	13.155	11.126	-6 • -1		3.190		164	.746	1.013	114 . 809
117.995	13.151	11.126			3.179		165	• 74-7	1.010	119.445
122.780	13.147	11.124	6.1		3.169		166	•747		124.266
127.753			6•₌1			<b>1</b>	167	.748	1.005	129.276
132.923	13.138	11.117			3.148	4.	167	• 74-8	1.003	134-485
138.298	13.13 <u>3</u>	11.113	6 • 1		3.137	1.	168	•749	1.001	139.900
145.028	13.126	11.107	6.1	163	3.125	1.	169	• 75 <u>.</u> 0	• 999	146.681
150.880	13.121	11.102	6.1		3.115		169	•750	•997	152.577
156.962	13.115	11.096			3.106		170	•751		158.705
153.283	13.109	11.089	6 • 2		3.096		170	•751		165.073
169.852	13.104	11.083	6 • 2		3.087		170	• 75:2		171-691
1.7.6.677	13.098	11.076	-6 • 2		3.077		170	• 752		178.568
183.768	13.093	1.1.070			3.068		170	•752		185.712
191.136	13.087	11.063	6 • 2		3.059		170	• 752		<b>193 • 135</b>
200.355	13.081	11.055	6∙.3	301	3.048	1.	169	• 75 2	•988	202.424

MA	/CH NO =	15.00	CONE AND	SLE = 7.	ON ANGL	LE OF ATT	rack = 1	0.00
		P /	P FREE-S	TREAM A	T PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150.	180.	SZRN
LYKN	0.	30 •	00 •	50 €	1500	150 •	100.	SZEN
•728	55.729	51.603	41.628	30.695	22.303	17.474	15.941	1.296
.856	36-847	33.864	26.749	19.201	13.610	10.476	9.500	1.426
1.057	32.559	29.784		16.528	11.678	9.023	8.208	1.628
1.377	29.749	27.116	21.036	14.956	10.665	8.332	7.619	1.951
1.771	26.687	24.239		13.260	9.638	7.773	7.226	2.348
2.156	24.296		16.728		8.723		6.861	2.736
2.676	22.023		14.586	10.257	7.725		6.471	3.260
3.248	20.420	17.938	13.012	8.991	6.753		6.070	3.837
3.854	19.458	16.822	11.822	7.961	5.942	5 . 495	5.614	4.447
4.374	19.052	16.235		7.285	5.400		5.233	4.971
5.003	18.935				4.867		4.845	5.605
5.630	19.13)	15.732	10.040		4.437		4.540	6.237
6.250	19.547	15.816	9.753		4.097		4.285	5.861
6.757	2.0 - 0 0 0	15.999	9.598		3.870	3:• 80 3	4.092	7.372
7-353	20.4618	16.313			3.647	3.589	3.879	
7.932	21.298	16.694	9.434		3.461	3.410	3.689	8.556
8.495	22.052	17.121	9.428		3.302	3.261	3.527	9.122
8.950	22.737	17.510	9.450	4.920	3.185	3.155	3-414	9.581
9.481	23.609	1-8-021	9.504	_	3.060	3.047	3.301	1.0 - 11-6
9.996	24.502	18,583	9.583		2.950	2.953	3-210	10.635
10.499	25.376	19.193	9.683		2.853	2-871	3.136	11.142
10.991	26.197	19.842	9.799	4.580	2.766	2.798	3.073	11.637
11.395	26.820	20.402	9.908		2.699	2.742	3.026	12.044
11.875	27.477	21.084	10.051		2.625	2.679	2.976	12.528
12.354	28.024	21.763	10.208		2.555	2.621	2-929	13.011
12.835	28.453	22.423	10.378		2-488	2.566	2.885	13.495
13.240	28.717	22.946	10.532		2.434	2-522	2.850	13.903
13.735	28.924	23.530			2.370	2.471	2.810	14.402
14.242	29.018	24.051			2.307	2.421	2.773	14.913
14.768	29.015			-	2.243	2.373	2.738	15.443
15.224	28.953				2.190	2.333	2.711	15.902
15.797	28.827	25.052	11.704	4.307	2.125	2.285	2.683	16.479
			1.2 • 025	4.304		2.236		17.091
17.052	28.469	25.200	12.378	4.307	1.992	2-187	2.642	17.744
17.622	28.316	25.118	12.693	4.313	1.936	2-144	2.631	18.318
18.342	28.156	24.922	13.090	4.326	1.869	2.091	2.622	19.044
19.112	28.078	24.633	13.500	4.346	1.804	2.075	2.616	19.820
19.943	28.055	24.273	13.909	4.375	1.741	1.974	2.610	20.657
20.846	28.080	23.888	14.298	4.413	1.682	1.908	2.602	21.566
21.662	28.117	23.588	14.590	4.454	1.637	1.,849	2.591	22.389
22.731	28.164	23.288	14.873	4.515	1.591	1.773	2.569	23.466
23.4893	28.202	23.076	15.056	4.590	1.554	1.695	2.537	24.636
25-146	28-222	22.952		4,679	1.527	1.618	2.493	25.899
26.255	28.226	22.901	15.114	4.768	1.511	1-555	2.448	27.026
27.666	28.211	22.884	-	4.889	1.501	1.485	2.389	28.438

MACH NO = 15.00 CONE ANGLE =	7.00	ANGLE OF	ATTACK = 10.00
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		P /	P FREE-ST	REAM AT	PLANE	ANGLES		
L/RN	0 •	30 •	60.	90•	120.	150.	180.	S/RN
29.121	28.163	22.895	14.906	5•026	1.500	1.424	2.327	29.904
30.635	28.083	22.922	14.743	5.177	1.505	1.370	2.263	31.429
31.944	28.008	22.958	14.596	5.309	1.514	1.331	2.210	32.747
33.575	27.929	23.010	14.417	5.469	1.529	1.289	2.147	34.391
35.277	27.871	23.962	14.246	5.618	1.547	1.253	2.085	36.106
37.052	27.838	23.105	14.085	5.750	1.568	1.223	2.026	37.894
38.589	27.828	23.132	13.960	5.845	1.585	1.200	1.979	39.442
40.505	27.837	23.156	13.816	5.941	1.606	1.176	1.925	41.373
42.501	27.866	23.174	13.680	6.017	1.627	1.154	1.874	43.384
44.580	27.910	23.190	13.548	6.075	1.647	1.135	1.826	45.478
46.742	27.954	23.207	13.422	6.117	1.668	1.118	1.782	47.657
48.610	28.011	23.223	13.320	6.141	1.685	1.105	1.747	49.539
50.934	28.065	23.243	13.203	6.160	1.705	1.091	1.708	51.888
53.350	28.114	23.269	13.091	6.169	1.724	1.079	1.672	54.315
55.864	28.157	23.300	12,985	6.169	1.742	1.067	1.639	56.4848
58.037	28-187	23.331	12.900	6.164	1.756	1.058	1.613	59.036
70.741	28.217	23.373	12.802	6.151	1.771	1.047	1.584	
63.559	28.241	23.418	12.709	6.131	1.784	1.037	1.556	64.60D
66.495	28.260	23.464	12.622	6.105	1.795	1.027	1.529	67,558
69.037	28.274	23.503	12.553	6.079	1.803	1.018	1.508	
72.207	28.287	23.547	12.477	6.045	1.813	1.008	1.483	
75.515	28.298	23.587	12.407	6.007	1.821	•999	1 - 45.8	76•646
73.968	28.308	23.623	12.346	5.968	1.830	• 98 9	1.435	80-125
81.960	28.314	23.649	12.301	5.935	1.837	•982	1 • 417	
85.695	28.319	23.673	12.256	5.895	1.845	• 97 4	1.395	86.903
89.595	28.322	23.692	12.221	5 • 85 <u>6</u>	1.852	•967	1.375	
93.667	28 • 322	23.704	12.195	5.816	1.857	• 96 0	1.357	
97.919	28.320	23.711	12.180	5.7.7.7	1.859	• 95 4	1-339	99.218
1(1.605	28.316	23.713	12.174	5.746	1.860	• 95 0		102.932
106.207	28.309	23.712	12.175	5.709	1.860	•945		107.569
111.013	28.300	23.706	12.185	5.674	1.859	• 94 0	-	112.411
116.031	28.289	23.698	12.204	5.640	1.858	• 936		117-466
120.381	28.279	23.689	12.225	5.613	1.857	•933		121.849
125.812	28.266	23.676	12.256	5.583	1.855	• 930		127.321
131.483	28.252	23.561	12.294	5.553	1.853	•927	_	133.034
137.402	28.238	23.645	12.338	5.526	1.851	• 925		138.998
142.532	28.225	23.630	12.379	5.504	1.848	• 923		144.166
148.935	28.211	23.612	12.431	5 • 479	1-845	•921		150.618
155.617	28.196	23.594	12.488	5.455	1.842	•919		157.350
162.590	28.182	23.575	12.547	5.432	1.838	•918		164.375
168.631	28.171	23.559	12.599	5.413	1.835	• 91 6		170.461
176.167	28.157	23.539	12.662	5.392	1-831	• 91 5		178.054
184.027	28.145	23.520	12.727	5 • .3.7.2	1.827	• 91 3	_	185-973
192.225	28.133	23.501	12.793	5.352	1.822	•911		194.232
200.772	28.122	2:3.482	12.859	5 • 333	1.817	•909	1.185	202.844

## NSHC/HOL/TR 75-45

MACH NO = 20.00 CONE ANGLE = 7.00 ANGLE OF ATTACK = 10.00	MACH NO = 20.00	CONE ANGLE =	7.00	ANGLE OF	ATTACK = 10.00
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		P /	P FREE-S	TREAM A	T PLANE	ANGLES		
L/RN	-0 •	30.	60.	90•	120.	150.	180.	S/RN
•729	97.948	90.656	73.042	53.754	38.976	30.488	27.797	1.297
.889	61.648	56.530	44.383	31.636	22.300	17.111	15.502	1.460
1.104	56.369	51.508	40.112	28.424	20.036	15.458	14.057	1.676
1.435	51,229	46.644	36.099	25.637	18.312	14.351	13.143	2.008
1.836	45.754	41.506	31.836	22.595	16.440	13.317	12.415	2.414
2.309	40.883	36.752	27.763	19.624	14.555	12.220	11.649	2.890
2.842	37.161	32.946	24.295	16.987	12.788	11.225	10.949	3.427
3.419	34.644	30.258	21.704	14.882	11.148	10.155	10.202	4.008
4.022	33.175	28.490	19.785	13.187	9.827	9.130	9.37.7	4.616
4.637	32.536	27.439	18.411	11.906	8.777	8.292	8.618	5.236
5.252	32.536	26.932	17.448	10.941	7.928	7.627	8.010	5.856
5.860	3-3.013	26.837	16.785	10.195	7.249	7.076	7:.520	6.468
6.554	33.954	27.106	16.284	9.533	6.638	6.533	7.026	7.167
7.131	34.940	27.555	16.025	9.100	6.229	6.142	6.642	7.749
7.691	36.037	28.126	15.879	8.756	5.893	5.814	6.298	8.313
8.232	37.270	28.777	15.815	8.476	5.606	5.541	6.001	8.857
8.753	38.656	29.500	15.814	8.244	5.358	5.313	5.752	9.382
9.254	40.171	30.310	15.863	8.049	5.141	5.120	5.548	9.888
9.738	41.758	31.217	15.955	7.883	4.952	4.955	5.382	10.375
10.206	43.348	32.220	16.080	7.741	4.786	4.810	5.244	10.847
10.660	44.877	33.306	16.233	7.619	4.638	4.681	5.127	11.304
11.103	46.296	34.454	16.410	7.514	4.505	4.565	5.025	11.750
11.538	47.565		16.608	7.424	4.384	4.459	4.933	12.188
12.038	48.824	37.047	16.863	7.335	4.252	4.345	4.835	12.692
12.464	49.694	38.238	17.103	7.270	4.146	4.253	4.757	13.121
12.890	50.360	39.393	17.364	7.214	4.043	4.167	4.682	13.551
13.321	50.821	40.488	17.648	7.165	3.943	4.035	4.612	13.785
13.757	51.085	41.502	17.959	7.122	3.844	4.005	4.545	14.425
14.205	51.170	42.415	18.301	7.086	3.746	3.928	4.483	14.875
14.666	51.103	43.200	18.680	7.054	3.647	3.853	4.426	15.340
15.146	50.908	43.830	19.102	7.027	3.546	3.779	4.374	15.824
15.649	50.607	44.277	19.574	7.005	3.444	3.706	4.328	16.331
15.181	50.224	44.521	20.103	6.989	3.339	3.631	4.290	16.866
16.744	49.797	44.549	20.694	6.978	3.232	3.556	4.259	17.434
17.436	49.342	44.318	21.449	6.974	3.106	3.466	4.234	18.131
18.064	49.056	43.899	22.145	6.978	2.998	3.385	4.219	18.763
18.731	48.907	43.296	22.876	6.992	2.891	3.299	4.208	19,436
19.447	48.891	42.558	23.625	7.016	2.785	3.207	4.199	20.157
20.220	48.97-2	41.774	24.363	7.053	2.683	3.105	4.186	24.936
21.061	49.108	41.040	25.049	7.103	2.587	2.994	4.156	21.783
21.981	49.252	40.425	25.627	7.171	2.501	2.873	4.134	22.710
22.989	49.368	39.974	26.031	7.257	2.426	2.744	4.086	23.726
24.059	49.454	39.718	26.228	7.364	2.367	2.615	4.023	24.804
25.197	49.508	39.610	26.233	7.496	2.322	2.488	3.945	25.950
26.420	49.524	39.601	26.084	7.665	2.291	2.366	3.855	27.182

MAC	H NO =	20.00 (	CONE ANGL	E = 7.0	) ANGLE	CF ATT	ACK = 10	) • <b>0</b> 0
, ,					01.4415	ANCLES		
			P FREE-ST		PLANE	ANGLES	400	S/RN
L/RN	0 •	30.	60•	90•	120.	150.	180.	37 KII
					0 077	2 277	3.738	28.751
27.977	49.432	39.662	25.753	7.921	2.273	2.233	3.634	30.169
29.384	49.256	39.764	25.390	8.185	2.275	2.132 2.045	3.528	31.643
30.848	49.047	39.894	24.999	8.479	2.288	1.971	3.422	33.179
32.372	48.865	40.040	24.620	8.786	2.312	1.907	3.316	34.779
33.960	48.730	40.17-2	24.272	9.082	2.341 2.372	1.851	3.212	36.448
35.616	48.650	40.274	23.962	9.344	2.403	1.802	3.109	38.187
37.342	48.620	40.341	23.682	9.565	2.432	1.758	3.010	39.998
39.140	48.640	40.379	23.424	9.745 9.881	2.461	1.719	2.915	41.883
41.012	48.704	40.401	23.179	9.978	2.488	1.683	2.825	43.843
42.957	48.803	40.416	22.945	10.042	2.515	1.652	2.741	45.879
44.977	48.916	40.428	22.720	10.042	2.546	1.619	2.651	48.352
47.432	49.046	40.443	22.470	10.004	2.572	1.594	2.580	50.560
49.623	49.146	40.465	22.269	10.099	2.597	1.572	2.515	52.851
51.898	49.230	40.500	22.079	10.085	2.622	1.551	2.455	55.231
54.260	49.296	40.551	21.900	10.055	2.644	1.531	2.400	57.704
56.715	49.347	40.616	21.731	10.012	2.664	1.512	2.347	60.276
59,267	49.383	40.692	21.572	9.956	2.682	1.494	2.297	62.951
61.922	49.409	40.774	21.420	9.888	2.698	1.476	2.249	65.736
64.687	49.431	40.859	21.277	9.813	2.714	1.458	2.202	68.637
67.566	49.450	40.945	21.143 21.017	9.735	2.728	1.441	2.157	71.660
70.566	49.469	41.027	20.902	9.655	2.743	1.424	2.113	74.811
73.693	49.488	41.101	20.784	9.562	2.760	1.404	2.064	78.656
77.510	49.508	41.175	20.700	9.482	2.773	1.388	2.023	82.104
80.932	49.524	41.266	20.634	9.402	2.783	1.373	1.985	85.699
84.501	49.537	41.294	20.584	9.324	2.790	1.359	1.949	89.448
88.222	49.547	41.311	20.553	9.248	2.793	1.345	1.914	93.357
92.102	49.544	41.319	20.539	9.174	2.792	1.332	1.882	97.433
96.147 100.366	49.535	41.319	20.541	9.103	2.789	1.319	1.851	101.683
104.765	49.522		20.560	9.035	2.784	1.307	1.823	106.115
109.352	49.505		20.593	8.971	2.779	1.295	1.796	110.737
114.134	49.484			8.910	2.775	1.285	1.770	115.555
119.122	49.461	41.258	20.702	8.853	2.769	1.275	1.746	120.580
125.210	49.432	_	20.788	8.792	2.762	1.265	1.720	126.714
130.669	49.407		20.873	8.743	2.754	1.257	1.700	132.214
136.360	49.381		20.968	8.6.97	2.744	1.249	1.680	137.948
142.292	49.355		21.071	8.655	2.734	1.242	1.662	143.924
148 - 47-4	49.330	. 3	21.180	8.615	2.723	1.236	1.645	150.153
154.917	49.306		21.295	8.578	2.712	1.230		156.644
161.630	49.282			8.543	2.702	1.225	1.615	163.407
168.623	49.259			8.509	2.691	1.220	1.602	170.453
175.907	49.238	40.961		8.478	2.680	1.215	1.509	177.791
183.492	49.217	7 - 7 - 7 - 2		8.448	2.669	1.210	1.5//	1-85-434
191.391	49.198	40.891		8.420	2.659	1.205	1.700	193.392 203.091
201-018	49.176		22.061	8.389	2.647	1.200	1.774	500.02T

MACH NO = 25.00 CONE ANGLE = 7.00 ANGLE OF ATTACK = 10.00

L/RN 9. 30. 60. 90. 120. 150. 180. S/RN  .730 152.229 140.865 113.431 83.400 60.421 47.223 43.052 1.297 .889 95.792 87.818 68.903 49.068 34.553 26.494 23.994 1.460 1.103 87.560 79.992 62.259 44.084 31.649 23.936 21.761 1.675 1.431 79.493 72.363 55.971 39.722 28.350 22.203 20.331 2.006 1.906 69.541 63.016 48.223 34.176 24.910 20.284 18.970 2.969 2.926 56.626 50.081 36.771 25.626 19.280 17.039 16.690 3.512 3.504 52.931 46.095 32.875 22.499 16.800 15.360 15.494 4.094 4.207 50.587 43.164 29.627 19.550 14.535 13.574 14.004 4.802 4.817 49.884 41.777 27.687 17.729 13.012 12.370 12.899 5.417 5.424 50.095 41.164 26.332 16.344 11.780 11.403 12.23 6.028 6.020 50.967 41.135 25.394 15.267 10.802 10.559 11.300 6.629 6.698 52.483 41.629 24.688 14.310 9.921 9.785 10.553 7.312 7.260 54.008 42.343 24.321 13.681 9.327 9.209 9.975 7.879 7.803 55.714 43.212 24.111 13.177 8.833 8.727 9.461 8.426 8.910 60.228 45.481 24.019 12.366 7.986 7.980 8.602 9.038 8.910 60.228 45.481 24.019 12.366 7.986 7.940 8.602 9.038 8.910 60.228 45.481 24.019 12.366 7.986 7.940 8.602 9.038 8.910 60.228 45.481 24.019 12.366 7.986 7.940 8.602 9.034 10.379 70.337 51.717 24.675 11.423 6.914 6.991 7.751 10.488 10.388 68.009 50.007 24.449 11.599 7.123 7.177 7.841 11.010 17.79 70.347 51.717 24.675 11.423 6.914 6.991 7.752 11.422 11.216 72.494 53.515 24.933 11.839 7.400 7.421 8.073 10.488 11.371 79.293 63.146 26.783 10.916 6.206 6.367 7.119 13.157 12.499 77.565 59.386 25.931 10.916 6.206 6.500 7.385 12.277 12.098 76.279 57.543 25.557 11.012 6.350 6.668 7.385 12.277 12.098 76.279 57.543 25.557 11.012 6.350 6.506 6.500 7.381 12.752 12.499 77.566 69.125 29.721 10.475 5.131 5.532 6.450 14.871 13.781 79.621 64.709 27.234 10.679 5.742 5.984 6.784 14.494 15.613 77.856 69.479 30.520 10.442 4.977 5.424 6.831 12.752 12.499 77.566 69.479 30.520 10.442 4.977 5.424 6.831 12.759 12.499 77.568 69.479 30.520 10.442 4.977 5.424 6.831 12.759 12.499 77.568 64.461 33.506 10.401 4.316 4.947 6.269 19.205 13.6632 78.542 69.125 29.721 10.475 5.131 5.532 6.450 16.313 16.513 77.786 69.479			P /	P FREE-S	TREAM	AT PLANE	ANGLES		
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1.103 87.560 79.992 62.299 44.884 31.049 23.936 21.761 1.675 1.431 79.493 72.363 55.971 39.722 28.350 22.203 20.331 2.006 1.906 69.541 63.016 48.223 34.176 24.910 20.284 18.970 2.484 2.388 62.195 55.701 41.907 29.596 22.029 18.606 17.789 2.969 2.926 56.626 50.081 36.771 25.626 19.280 17.039 16.690 3.512 4.207 50.587 43.164 29.627 19.550 14.535 13.574 14.004 4.807 4.207 50.587 43.164 29.627 19.550 14.535 13.574 14.004 4.802 6.020 50.967 41.135 25.394 15.267 10.802 10.589 11.300 6.629 6.698 52.483 41.629 24.688 14.310 9.921 9.785 10.553 7.312 7.260 54.008 42.343 24.321 13.681 9.327 9.209 9.975 7.879 7.803 55.714 43.212 24.111 13.177 8.833 8.727 9.461 8.426 8.411 58.001 44.364 24.001 12.701 8.335 8.266 8.396 9.388 8.910 60.228 45.481 24.019 12.366 7.986 7.940 8.602 9.541 9.389 62.638 46.745 24.097 12.082 7.673 7.662 8.312 10.023 8.910 60.228 45.481 24.019 12.366 7.986 7.940 8.602 9.541 9.389 62.638 46.745 24.097 12.082 7.673 7.662 8.312 10.023 8.910 70.797 70.347 51.717 24.675 11.423 6.914 6.991 7.672 11.442 10.797 70.347 51.717 24.675 11.423 6.914 6.991 7.672 11.442 11.216 72.494 53.515 24.933 11.272 6.350 6.566 8.302 7.325 12.275 12.499 77.566 59.386 25.219 11.142 6.550 6.566 7.385 12.277 12.098 76.279 75.543 25.587 11.012 6.350 6.500 7.238 12.752 12.499 77.566 59.386 25.931 10.916 6.206 6.367 7.319 13.557 12.499 77.566 59.386 25.931 10.916 6.206 6.367 7.119 13.557 12.909 78.543 61.173 26.305 10.632 6.550 6.566 6.200 7.007 13.561 15.632 78.542 69.125 29.721 10.475 5.386 6.100 6.367 7.119 13.557 12.909 78.543 61.173 26.305 10.632 5.587 6.596 6.360 7.238 12.775 12.499 77.566 59.386 25.931 10.916 6.206 6.367 7.385 12.277 12.098 76.279 75.543 25.587 10.052 5.587 6.566 6.300 7.238 12.752 12.499 77.566 59.386 25.931 10.916 6.206 6.367 7.385 12.277 12.098 76.279 75.543 25.587 10.126 6.350 6.360 7.385 12.277 12.098 76.676 6.366 6.366 6.360 7.385 12.277 12.098 76.676 6.366 6.360 7.385 12.277 12.098 76.676 76.676 6.485 25.219 14.474 4.820 5.315 6.341 11.036 13.371 79.621 64.799 27.234 10.621 5.589 5.873 6.691 14.871 15.62	.889	95.792	87.818	68.903					
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2.926         56.626         50.081         36.771         25.626         19.280         17.039         16.690         3.512           3.504         52.931         46.095         32.875         22.449         16.800         15.350         15.494         4.094           4.817         49.884         41.777         27.687         17.729         13.012         12.370         12.899         5.417           5.424         50.095         41.164         26.332         16.344         11.780         11.403         12.023         6.028           6.698         52.483         41.629         24.688         14.310         9.921         9.785         10.553         7.312           7.803         55.714         43.212         24.111         13.177         8.833         8.727         9.461         8.426           8.910         60.228         45.481         24.011         12.701         8.345         8.266         8.956         9.038           8.910         60.228         45.481         24.011         12.701         8.345         8.266         8.956         9.038           8.910         60.228         45.481         24.011         12.701         8.345         8.266         8.956									
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4.207       50.587       43.164       29.627       19.550       14.535       13.574       14.004       4.802         4.817       49.884       41.777       27.687       17.729       13.012       12.370       12.899       5.417         5.424       50.095       41.162       26.322       16.344       11.780       11.230       6.028         6.698       52.483       41.629       24.688       14.310       9.921       9.785       10.553       7.312         7.260       54.008       42.343       24.321       13.681       9.327       9.209       9.975       7.873         7.803       55.714       43.212       24.111       13.177       8.833       8.727       9.461       8.426         8.910       60.228       45.481       24.011       12.701       8.345       8.266       8.996       9.541         9.389       62.532       46.745       24.011       12.366       7.986       7.940       8.602       9.541         9.389       62.533       46.745       24.019       12.366       7.986       7.940       8.602       9.541         10.368       68.009       50.007       14.4469       11.599       7.127 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td>									-
4.817       49.884       41.777       27.687       17.729       13.012       12.370       12.899       5.417         5.424       50.995       41.164       26.332       16.344       11.780       11.403       12.023       6.028         6.698       52.483       41.629       24.688       14.310       9.921       9.785       10.553       7.312         7.260       54.008       42.343       24.321       13.681       9.327       9.209       9.975       7.879         7.803       55.714       43.212       24.111       13.177       8.833       8.727       9.461       8.426         8.411       58.001       44.364       24.011       12.701       8.345       8.266       8.956       9.038         8.910       60.228       45.481       24.019       12.366       7.986       7.940       8.602       9.541         10.797       70.347       51.717       24.675       11.423       6.914       6.991       7.672       8.312       10.023         9.850       65.132       48.165       24.233       11.529       7.123       7.177       7.841       11.010         10.797       70.347       51.717       24.675 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
5.424       50.095       41.164       26.332       16.344       11.780       11.403       12.023       6.028         6.020       50.967       41.135       25.394       15.267       10.802       10.589       11.300       6.629         6.698       52.483       41.629       24.688       14.310       9.921       9.785       10.553       7.312         7.260       54.008       42.343       24.321       13.681       9.327       9.209       9.975       7.879         7.803       55.714       43.212       24.011       12.701       8.345       8.266       8.956       9.038         8.411       58.001       44.364       24.011       12.701       8.345       8.266       8.956       9.038         8.910       60.228       45.481       24.019       12.202       7.673       7.662       8.312       10.023         9.850       65.132       48.165       24.233       11.839       7.400       7.421       8.073       10.482         10.368       68.009       50.007       24.449       11.599       7.123       7.177       7.841       10.010         10.797       70.347       51.717       24.675       11.423 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
6.020 50.967 41.135 25.394 15.267 10.802 10.589 11.300 6.629 6.698 52.483 41.629 24.688 14.310 9.921 9.785 10.553 7.312 7.260 54.008 42.343 24.321 13.681 9.327 9.209 9.975 7.879 7.803 55.714 43.212 24.111 13.177 8.833 8.727 9.461 8.426 8.411 58.001 44.364 24.011 12.701 8.345 8.266 8.956 9.038 8.910 60.228 45.481 24.019 12.366 7.986 7.940 8.602 9.541 9.389 62.638 46.745 24.097 12.362 7.673 7.662 8.312 10.023 9.850 65.132 48.165 24.233 11.839 7.400 7.421 8.073 10.488 10.368 68.009 50.007 24.449 11.599 7.123 7.177 7.841 11.010 10.797 70.347 51.717 24.675 11.423 6.914 6.991 7.672 11.442 11.216 72.494 53.515 24.933 11.272 6.724 6.823 7.552 11.4864 11.626 74.401 55.366 25.219 11.122 6.360 6.500 7.238 12.772 12.098 76.279 57.543 25.587 11.012 6.360 6.500 7.238 12.775 12.490 78.543 61.173 26.305 10.932 6.056 6.240 7.007 13.551 13.371 79.621 64.709 27.234 10.679 5.742 5.984 6.784 14.491 15.536 25.931 10.916 6.206 6.367 7.119 13.157 12.490 78.543 61.173 26.305 10.032 6.056 6.240 7.007 13.551 13.371 79.621 64.709 27.234 10.679 5.742 5.984 6.784 14.491 15.601 79.690 66.118 27.732 10.621 5.598 5.873 6.691 14.481 15.602 78.543 69.125 29.721 10.475 5.886 6.100 6.884 14.035 15.632 78.542 69.125 29.721 10.475 5.886 6.100 6.884 14.035 15.632 78.542 69.125 29.721 10.475 5.385 6.310 17.996 15.635 77.186 69.479 27.234 10.576 5.282 5.638 6.516 15.836 16.659 77.118 69.505 31.414 10.417 4.820 5.315 6.348 17.348 17.302 76.355 69.119 32.561 10.399 4.635 5.185 6.310 17.996 16.131 77.856 69.479 30.520 10.442 4.977 5.242 6.394 16.816 16.131 77.856 69.479 30.520 10.422 4.158 4.814 6.254 19.869 19.995 75.884 68.467 33.626 10.394 4.476 5.069 6.286 18.583 18.502 75.645 66.213 35.929 10.422 4.158 4.814 6.254 19.869 19.995 75.884 64.697 37.306 10.407 3.977 4.644 6.231 20.709 20.775 76.661 61.590 40.192 10.525 3.831 4.840 6.231 20.709 21.626 76.345 62.449 39.393 10.602 3.695 4.305 6.156 22.352 21.4495 22.4707 76.893 10.601 40.526 10.888 3.461 3.896 5.987 24.421 24.707 76.893 10.601 40.526 10.888 3.461 3.896 5.987 24.421 24.707 76.893 10.601 40.52									
6.698         52.483         41.629         24.688         14.310         9.921         9.785         10.553         7.312           7.260         54.008         42.343         24.321         13.681         9.327         9.209         9.975         7.873           7.803         55.714         43.212         24.111         13.177         8.833         8.727         9.461         8.426           8.411         58.001         44.364         24.011         12.701         8.345         8.266         8.956         9.038           8.910         60.263         45.481         24.011         12.366         7.986         7.940         8.602         9.541           9.389         65.638         46.745         24.097         12.082         7.673         7.662         8.312         10.036           10.368         68.009         50.007         24.449         11.599         7.123         7.177         7.841         11.010           11.216         72.494         53.515         24.933         11.272         6.724         5.823         7.522         11.462           11.246         7.401         55.366         25.219         11.142         6.550         6.668         7.385									
7.260 54.008 42.343 24.321 13.681 9.327 9.209 9.975 7.879 7.803 55.714 43.212 24.111 13.177 8.833 8.727 9.461 8.426 8.411 58.001 44.364 24.011 12.701 8.345 8.266 8.956 9.038 8.910 60.228 45.481 24.019 12.366 7.986 7.980 8.602 9.541 9.389 62.638 46.745 24.097 12.082 7.673 7.662 8.312 10.023 9.850 65.132 48.165 24.233 11.839 7.400 7.421 8.073 10.488 10.368 68.009 50.007 24.449 11.599 7.123 7.177 7.841 11.010 10.797 70.347 51.717 24.675 11.423 6.914 6.991 7.672 11.442 11.216 72.494 53.515 24.933 11.272 6.724 5.823 7.522 11.864 11.626 74.401 55.366 25.219 11.142 6.550 6.668 7.385 12.277 12.098 76.279 57.543 25.587 11.012 6.360 6.500 7.238 12.752 12.499 77.566 59.386 25.931 10.916 6.206 6.367 7.119 13.157 12.990 78.543 61.173 26.305 10.832 6.056 6.240 7.007 13.561 13.371 79.293 63.146 26.783 10.745 5.886 6.100 6.884 14.035 13.781 79.621 64.709 27.234 10.679 5.742 5.984 6.784 14.449 14.201 79.690 66.118 27.732 10.621 5.598 5.873 6.691 14.871 14.633 79.531 67.337 28.284 10.568 5.453 5.764 6.606 15.307 15.158 79.097 68.461 29.013 10.515 5.282 5.638 6.516 15.836 15.632 78.542 69.125 29.721 10.475 5.131 5.532 6.450 16.313 16.131 77.856 69.479 30.520 10.442 4.977 5.424 6.394 16.816 16.659 77.118 69.505 31.414 10.417 4.820 5.315 6.348 17.348 17.302 76.355 69.119 32.561 10.399 4.635 5.185 6.348 17.348 18.502 75.645 67.430 34.756 10.497 4.870 5.09 6.286 18.583 18.502 75.645 67.430 34.756 10.497 4.476 5.069 6.286 18.583 18.502 75.645 67.430 34.756 10.401 4.316 4.947 6.269 19.205 19.995 75.804 64.697 37.306 10.422 4.158 4.814 6.254 19.869 17.885 75.887 68.427 33.626 10.399 4.635 5.185 6.310 17.996 17.885 75.887 68.427 33.626 10.399 4.635 5.185 6.310 17.996 17.885 75.887 68.427 33.626 10.399 4.635 5.185 6.310 17.996 17.885 75.887 68.427 33.626 10.552 3.831 4.482 6.254 19.869 17.885 75.887 68.427 33.626 10.552 3.831 4.482 6.254 19.869 17.885 75.887 68.427 33.626 10.552 3.831 4.482 6.254 19.869 17.885 75.887 68.427 33.626 10.552 3.831 4.482 6.254 19.869 17.885 75.887 68.427 33.626 10.552 3.831 4.482 6.254 19.869					-				
7.803 55.714 43.212 24.111 13.177 8.833 8.727 9.461 8.426 8.411 58.001 44.364 24.011 12.701 8.345 8.266 8.956 9.038 8.910 60.228 45.481 24.019 12.366 7.986 7.940 8.602 9.541 9.389 62.638 46.745 24.097 12.082 7.673 7.662 8.312 10.023 9.850 65.132 48.165 24.233 11.839 7.400 7.421 8.073 10.488 10.358 68.009 50.007 24.449 11.599 7.123 7.177 7.841 11.010 10.777 70.347 51.717 24.675 11.423 6.914 6.991 7.672 11.442 11.216 72.494 53.515 24.933 11.272 6.724 6.823 7.522 11.864 11.626 74.401 55.366 25.219 11.142 6.550 6.668 7.385 12.277 12.998 76.279 57.543 25.587 11.012 6.360 6.500 7.238 12.752 12.499 77.566 59.386 25.931 10.916 6.206 6.367 7.119 13.157 12.900 78.543 61.173 26.305 10.832 6.056 6.240 7.007 13.561 13.371 79.293 63.146 26.783 10.745 5.886 6.100 6.884 14.035 13.781 79.691 64.709 27.234 10.679 5.742 5.984 6.784 14.449 14.201 79.690 66.118 27.732 10.621 5.598 5.873 6.691 14.871 14.633 79.531 67.337 28.284 10.568 5.453 5.764 6.606 15.307 15.158 79.097 68.461 29.013 10.515 5.282 5.638 6.516 15.836 15.632 78.542 69.125 29.721 10.475 5.131 5.532 6.450 16.313 16.131 77.856 69.479 30.520 10.442 4.977 5.424 6.394 16.816 17.385 75.887 68.427 33.626 10.399 4.635 5.185 6.310 17.996 17.885 75.887 68.427 33.626 10.399 4.635 5.185 6.310 17.996 17.885 75.887 68.427 33.626 10.399 4.635 5.185 6.310 17.996 17.885 75.887 68.427 33.626 10.399 4.635 5.185 6.310 17.996 17.885 75.887 68.427 33.626 10.399 4.635 5.185 6.310 17.996 17.885 75.887 68.427 33.626 10.399 4.635 5.185 6.310 17.996 17.885 75.887 68.427 33.626 10.399 4.635 5.185 6.310 17.996 17.885 75.887 68.427 33.626 10.422 4.158 4.814 6.221 20.709 20.775 76.067 63.480 38.425 10.525 3.831 4.482 6.202 21.495 22.706 76.610 61.590 40.192 10.722 3.557 4.085 6.156 22.352 22.706 76.610 61.590 40.192 10.722 3.557 4.085 6.156 22.352 23.679 76.772 61.191 40.5564 11.008 3.384 3.710 5.880 5.987 24.422 22.706 76.861 61.590 40.192 10.722 3.557 4.085 6.976 23.4402 23.679 76.772 61.191 40.5564 10.848 3.461 3.896 5.997 24.4825									
8.411       58.001       44.364       24.011       12.701       8.345       8.266       8.956       9.038         8.910       60.228       45.481       24.019       12.366       7.986       7.940       8.602       9.541         9.389       62.638       46.745       24.097       12.082       7.673       7.662       8.312       10.023         9.850       65.132       48.165       24.233       11.839       7.400       7.421       8.073       10.488         10.368       68.009       50.007       24.449       11.599       7.123       7.177       7.841       11.010         10.797       70.347       51.717       24.675       11.423       6.914       6.991       7.672       11.442         11.626       74.401       55.566       25.219       11.422       6.550       6.568       7.385       12.275         12.499       77.566       59.386       25.931       10.916       6.206       6.367       7.119       13.157         12.499       77.566       59.386       25.931       10.916       6.206       6.367       7.119       13.157         12.900       78.543       61.173       26.305       10.826<									
8.910 60.228 45.481 24.019 12.366 7.986 7.940 8.602 9.541 9.389 62.638 46.745 24.097 12.382 7.673 7.662 8.312 10.023 10.368 68.009 50.007 24.449 11.599 7.123 7.177 7.841 11.010 10.797 70.347 51.717 24.675 11.423 6.914 6.991 7.672 11.442 11.216 72.494 53.515 24.933 11.272 6.724 5.823 7.522 11.864 11.626 74.401 55.366 25.219 11.142 6.550 6.668 7.385 12.277 12.098 76.279 57.543 25.587 11.012 6.360 6.500 7.238 12.275 12.499 77.566 59.386 25.931 10.916 6.206 6.367 7.119 13.157 12.900 78.543 61.173 26.305 10.832 6.056 6.240 7.007 13.561 13.371 79.293 63.146 26.783 10.745 5.886 6.100 6.884 14.035 13.781 79.621 64.709 27.234 10.629 5.598 5.873 6.691 14.449 14.201 79.690 66.118 27.732 10.621 5.598 5.873 6.691 14.449 14.203 79.531 67.337 28.284 10.568 5.453 5.764 6.606 15.307 15.158 79.097 68.461 29.013 10.515 5.282 5.638 6.516 15.836 15.632 78.542 69.125 29.721 10.475 5.131 5.532 6.450 16.313 17.856 69.479 30.520 10.427 4.820 5.315 6.348 17.348 17.302 76.355 69.119 32.561 10.497 5.131 5.532 6.450 16.313 17.805 75.887 68.427 33.626 10.394 4.476 5.069 6.286 18.583 18.502 75.645 67.430 34.756 10.407 5.397 4.635 5.185 6.310 17.996 17.885 75.887 68.427 33.626 10.394 4.476 5.069 6.286 18.583 18.502 75.645 67.430 34.756 10.407 5.397 4.634 6.254 19.869 17.995 75.804 64.697 37.306 10.467 3.977 5.424 6.254 19.869 17.995 75.804 64.697 37.306 10.467 3.977 4.644 6.254 19.869 17.995 75.804 64.697 37.306 10.467 3.977 4.644 6.254 19.869 18.995 75.804 64.697 37.306 10.467 3.977 4.664 6.254 19.869 20.775 76.067 63.480 38.425 10.525 3.831 4.482 6.202 21.495 22.770 76.893 C1.031 40.526 10.808 3.857 4.085 6.965 5.987 24.421 22.4707 76.893 C1.031 40.526 10.808 3.865 5.987 24.421									_
9.389 62.638 46.745 24.097 12.082 7.673 7.662 8.312 10.023 9.850 65.132 48.165 24.233 11.839 7.400 7.421 8.073 10.488 10.368 68.009 50.007 24.449 11.599 7.123 7.177 7.841 11.010 10.777 70.347 51.717 24.675 11.423 6.914 6.991 7.672 11.442 11.216 72.494 53.515 24.933 11.272 6.724 6.823 7.522 11.845 11.626 74.401 55.366 25.219 11.142 6.550 6.668 7.385 12.277 12.098 76.279 57.543 25.587 11.012 6.360 6.500 7.238 12.752 12.499 77.566 59.386 25.931 10.916 6.206 6.367 7.119 13.157 12.900 78.543 61.173 26.305 10.832 6.056 6.240 7.007 13.561 13.371 79.293 63.146 26.783 10.745 5.886 6.100 6.884 14.035 13.781 79.621 64.709 27.234 10.679 5.742 5.984 6.784 14.449 14.201 79.690 66.118 27.732 10.621 5.598 5.873 6.691 14.871 15.632 78.542 69.125 29.721 10.475 5.131 5.532 6.450 16.313 15.632 78.542 69.125 29.721 10.475 5.131 5.532 6.450 16.313 17.817 89.097 68.461 29.013 10.515 5.282 5.638 6.516 15.836 17.856 69.179 30.520 10.442 4.977 5.424 6.394 16.616 18.502 76.355 69.119 32.561 10.399 4.635 5.185 6.310 17.996 17.885 75.887 68.427 33.626 10.394 4.476 5.069 6.286 18.883 17.302 76.355 69.119 32.561 10.399 4.635 5.185 6.310 17.996 18.502 75.645 67.430 34.756 10.401 4.316 4.947 6.269 19.205 19.995 75.887 68.427 33.626 10.394 4.476 5.069 6.286 18.883 19.995 75.880 63.480 38.425 10.525 3.831 4.482 6.202 21.495 21.626 76.345 62.449 39.393 10.602 3.695 4.305 6.156 22.352 22.770 76.610 61.590 40.192 10.722 3.557 4.085 6.976 23.340 22.770 76.893 C1.031 40.564 11.008 3.384 3.710 5.880 25.457									
9.850 65.132 48.165 24.233 11.839 7.400 7.421 8.073 10.488 10.368 68.009 50.007 24.449 11.599 7.123 7.177 7.841 11.010 10.797 70.347 51.717 24.675 11.423 6.914 6.991 7.672 11.442 11.216 72.494 53.515 24.933 11.272 6.724 6.724 53.515 24.933 11.272 6.724 5.823 7.522 11.864 11.626 74.401 55.366 25.219 11.142 6.550 6.668 7.385 12.277 12.098 76.279 57.543 25.587 11.012 6.360 6.500 7.238 12.752 12.499 77.566 59.386 25.931 10.916 6.206 6.367 7.119 13.157 12.900 78.543 61.173 26.305 10.832 6.056 6.240 7.007 13.561 13.371 79.293 63.146 26.783 10.745 5.886 6.100 6.884 14.035 13.781 79.691 66.118 27.732 10.657 5.742 5.886 6.784 14.449 14.201 79.690 66.118 27.732 10.621 5.598 5.873 6.691 14.871 14.633 79.531 67.337 28.284 10.568 5.453 5.764 6.606 15.307 15.158 79.097 68.461 29.013 10.515 5.282 5.638 6.516 15.836 15.632 78.542 69.125 29.721 10.472 5.131 5.532 6.450 16.313 17.856 69.479 30.520 10.442 4.977 5.424 6.394 16.816 17.302 76.355 69.119 32.561 10.399 4.635 5.185 6.340 17.396 18.583 17.348 17.302 76.355 69.119 32.561 10.399 4.635 5.185 6.310 17.996 17.885 75.887 68.427 33.626 10.394 4.476 5.069 6.286 18.583 17.348 17.302 76.355 69.419 32.561 10.399 4.635 5.185 6.310 17.996 17.885 75.887 68.427 33.626 10.394 4.476 5.069 6.286 18.583 17.9995 75.804 64.697 37.306 10.401 4.316 4.947 6.269 19.205 19.995 75.804 64.697 37.306 10.402 4.316 4.947 6.269 19.205 19.995 75.804 64.697 37.306 10.427 4.316 4.814 6.254 19.869 19.995 75.804 64.697 37.306 10.427 4.316 4.814 6.254 19.869 19.995 75.804 64.697 37.306 10.427 4.316 4.814 6.254 19.869 19.995 75.804 64.697 37.306 10.427 4.316 4.814 6.254 19.869 19.995 75.804 64.697 37.306 10.427 4.316 4.814 6.254 19.869 19.995 75.804 64.697 37.306 10.427 4.316 4.814 6.254 19.869 19.995 75.804 64.697 37.306 10.427 4.316 4.814 6.254 19.869 19.995 75.804 64.697 37.306 10.427 4.316 4.814 6.254 19.869 19.995 75.804 64.697 37.306 10.427 33.831 4.482 6.202 21.495 10.402 33.606 33.804 35.710 5.880 5.987 24.421 22.776 76.803 C1.031 40.564 11.008 3.384 3.710 5.880 5.987 24.421 22.776 76.803 C1.031 40.5				_	-				
10.368 68.009 50.007 24.449 11.599 7.123 7.177 7.841 11.010 10.797 70.347 51.717 24.675 11.423 6.914 6.991 7.672 11.442 11.216 72.494 53.515 24.933 11.272 6.724 6.823 7.522 11.864 11.626 74.401 55.366 25.219 11.142 6.550 6.668 7.385 12.277 12.098 76.279 57.543 25.587 11.012 6.360 6.500 7.238 12.752 12.499 77.566 59.386 25.931 10.916 6.206 6.367 7.119 13.157 12.900 78.543 61.173 26.305 10.832 6.056 6.240 7.007 13.561 13.371 79.293 63.146 26.783 10.745 5.886 6.100 6.884 14.035 13.781 79.621 64.709 27.234 10.679 5.742 5.984 6.784 14.449 14.201 79.690 66.118 27.732 10.621 5.598 5.873 6.691 14.871 14.633 79.531 67.337 28.284 10.568 5.453 5.764 6.606 15.307 15.158 79.097 68.461 29.013 10.515 5.282 5.638 6.516 15.836 15.632 78.542 69.125 29.721 10.475 5.131 5.532 6.450 16.313 16.131 77.856 69.479 30.520 10.442 4.977 5.424 6.394 16.816 17.302 76.355 69.119 32.561 10.399 4.635 5.165 6.348 17.348 17.302 76.355 69.119 32.561 10.399 4.635 5.165 6.348 17.348 17.302 76.356 69.479 33.626 10.399 4.635 5.165 6.348 17.348 17.302 76.355 69.119 32.561 10.399 4.635 5.165 6.348 17.348 17.885 75.887 68.427 33.626 10.394 4.476 5.069 6.286 18.583 18.502 75.645 67.430 34.756 10.401 4.316 4.947 6.269 19.205 19.161 75.621 66.213 35.929 10.422 4.158 4.814 6.254 19.869 19.995 75.804 64.697 37.306 10.467 3.997 4.644 6.231 20.709 20.775 76.067 63.480 38.425 10.525 3.831 4.482 6.202 21.495 21.626 76.345 62.449 39.393 10.602 3.695 4.305 6.156 22.352 22.706 76.610 61.590 40.192 10.722 3.557 4.085 6.076 23.440 22.707 76.893 C1.031 40.564 11.008 3.384 3.710 5.880 25.457									
10.797       70.347       51.717       24.675       11.423       6.914       6.991       7.672       11.442         11.216       72.494       53.515       24.933       11.272       6.724       5.823       7.522       11.864         11.626       74.401       55.366       25.219       11.142       6.550       6.668       7.385       12.277         12.098       76.279       57.543       25.587       11.012       6.360       6.500       7.238       12.7752         12.499       77.566       59.386       25.931       10.916       6.206       6.367       7.119       13.157         12.900       78.543       61.173       26.305       10.832       6.056       6.240       7.007       13.561         13.371       79.293       63.146       26.783       10.745       5.886       6.100       6.884       14.035         13.781       79.621       64.709       27.234       10.627       5.742       5.984       6.784       14.449         14.633       79.531       67.337       28.284       10.568       5.453       5.764       6.601       15.307         15.158       79.097       68.461       29.013									10.488
11.216       72.494       53.515       24.933       11.272       6.724       6.823       7.522       11.864         11.626       74.401       55.366       25.219       11.142       6.550       6.668       7.385       12.277         12.098       76.279       57.543       25.587       11.012       6.360       6.500       7.238       12.752         12.499       77.566       59.386       25.931       10.916       6.206       6.367       7.119       13.157         12.900       78.543       61.173       26.305       10.832       6.056       6.240       7.007       13.561         13.371       79.293       63.146       26.783       10.745       5.886       6.100       6.884       14.035         13.781       79.621       64.709       27.234       10.679       5.742       5.984       6.784       14.493         14.201       79.690       66.118       27.732       10.621       5.598       5.873       6.691       14.871         14.633       79.531       67.337       28.284       10.568       5.453       5.764       6.606       15.307         15.158       79.097       68.461       29.013       1								7 • 841	
11.626       74.401       55.366       25.219       11.142       6.550       6.668       7.385       12.277         12.098       76.279       57.543       25.587       11.012       6.360       6.500       7.238       12.752         12.499       77.566       59.386       25.931       10.916       6.206       6.367       7.119       13.157         12.900       78.543       61.173       26.305       10.832       6.056       6.240       7.007       13.561         13.771       79.293       63.146       26.783       10.745       5.886       6.100       6.884       14.035         13.781       79.621       64.709       27.234       10.679       5.742       5.984       6.784       14.49         14.201       79.690       66.118       27.732       10.621       5.598       5.873       6.691       14.871         14.633       79.531       67.337       28.284       10.568       5.453       5.764       6.691       15.307         15.158       79.097       68.461       29.013       10.515       5.282       5.638       6.516       15.836         15.632       78.542       69.125       29.721       10							6.991	7.672	11.442
12.098       76.279       57.543       25.587       11.012       6.360       6.500       7.238       12.752         12.499       77.566       59.386       25.931       10.916       6.206       6.367       7.119       13.157         12.900       78.543       61.173       26.305       10.832       6.056       6.240       7.007       13.561         13.371       79.293       63.146       26.783       10.745       5.886       6.100       6.884       14.035         13.781       79.621       64.709       27.234       10.679       5.742       5.984       6.784       14.49         14.201       79.690       66.118       27.732       10.621       5.989       5.873       6.691       14.871         15.158       79.531       67.337       28.284       10.568       5.453       5.764       6.606       15.307         15.158       79.097       68.461       29.721       10.475       5.131       5.532       6.450       16.313         15.632       78.542       69.125       29.721       10.475       5.131       5.532       6.450       16.313         16.151       77.856       69.479       30.520       10								7.522	11.864
12.499       77.566       59.386       25.931       10.916       6.206       6.367       7.119       13.157         12.900       78.543       61.173       26.305       10.832       6.056       6.240       7.007       13.561         13.371       79.293       63.146       26.783       10.745       5.886       6.100       6.884       14.035         13.781       79.621       64.709       27.234       10.679       5.742       5.984       6.784       14.449         14.201       79.690       66.118       27.732       10.621       5.598       5.873       6.691       14.871         14.633       79.531       67.337       28.284       10.568       5.453       5.764       6.606       15.307         15.158       79.097       68.461       29.013       10.515       5.282       5.638       6.516       15.836         15.632       78.542       69.125       29.721       10.475       5.131       5.532       6.450       16.313         16.131       77.856       69.479       30.520       10.442       4.977       5.424       6.394       16.816         17.302       76.355       69.119       32.561       1				-			6.668	7.385	12.277
12.900       78.543       61.173       26.305       10.832       6.056       6.240       7.007       13.561         13.371       79.293       63.146       26.783       10.745       5.886       6.100       6.884       14.035         13.781       79.621       64.709       27.234       10.679       5.742       5.984       6.784       14.449         14.201       79.690       66.118       27.732       10.621       5.598       5.873       6.691       14.871         14.633       79.531       67.337       28.284       10.568       5.453       5.764       6.606       15.307         15.158       79.097       68.461       29.013       10.515       5.282       5.638       6.516       15.836         15.632       78.542       69.125       29.721       10.475       5.131       5.532       6.450       16.313         16.131       77.856       69.479       30.520       10.442       4.977       5.424       6.394       16.816         17.302       76.355       69.119       32.561       10.399       4.635       5.185       6.310       17.996         17.885       75.887       68.427       33.626       1					11.012	6.360	6.500	7.238	12,752
13.371       79.293       63.146       26.783       10.745       5.886       6.100       6.884       14.035         13.781       79.621       64.709       27.234       10.679       5.742       5.984       6.784       14.49         14.201       79.690       66.118       27.732       10.621       5.598       5.873       6.691       14.871         14.633       79.531       67.337       28.284       10.568       5.453       5.764       6.606       15.307         15.158       79.097       68.461       29.013       10.515       5.282       5.638       6.516       15.836         15.632       78.542       69.125       29.721       10.475       5.131       5.532       6.450       16.313         16.131       77.856       69.479       30.520       10.442       4.977       5.424       6.394       16.816         16.659       77.118       69.505       31.414       10.417       4.820       5.315       6.348       17.348         17.302       76.355       69.119       32.561       10.394       4.476       5.069       6.286       18.583         18.502       75.645       67.430       34.756       10					10.916	6.206	6.367	7.119	13.157
13.781       79.621       64.709       27.234       10.679       5.742       5.984       6.784       14.449         14.201       79.690       66.118       27.732       10.621       5.598       5.873       6.691       14.871         14.633       79.531       67.337       28.284       10.568       5.453       5.764       6.606       15.307         15.158       79.097       68.461       29.013       10.515       5.282       5.638       6.516       15.836         15.632       78.542       69.125       29.721       10.475       5.131       5.532       6.450       16.313         16.131       77.856       69.479       30.520       10.442       4.977       5.424       6.394       16.816         16.659       77.118       69.505       31.414       10.417       4.820       5.315       6.348       17.348         17.302       76.355       69.119       32.561       10.394       4.476       5.069       6.286       18.583         18.502       75.645       67.430       34.756       10.401       4.316       4.947       6.269       19.205         19.161       75.621       66.213       35.929       1		78.543	61.173	26.305	10.832	6.056	6.240	7-007	13.561
14.201       79.690       66.118       27.732       10.621       5.598       5.873       6.691       14.871         14.633       79.531       67.337       28.284       10.568       5.453       5.764       6.606       15.307         15.158       79.097       68.461       29.013       10.515       5.282       5.638       6.516       15.836         15.632       78.542       69.125       29.721       10.475       5.131       5.532       6.450       16.313         16.131       77.856       69.479       30.520       10.422       4.977       5.424       6.394       16.816         16.659       77.118       69.505       31.414       10.417       4.820       5.315       6.348       17.348         17.302       76.355       69.119       32.561       10.399       4.635       5.185       6.310       17.996         17.885       75.887       68.427       33.626       10.394       4.476       5.069       6.286       18.583         18.502       75.645       67.430       34.756       10.401       4.316       4.947       6.269       19.205         19.995       75.804       64.697       37.306       1		79.293	63.146	26.783	10.745	5.886	6.100	6.884	14.035
14.633       79.531       67.337       28.284       10.568       5.453       5.764       6.606       15.307         15.158       79.097       68.461       29.013       10.515       5.282       5.638       6.516       15.836         15.632       78.542       69.125       29.721       \$0.475       5.131       5.532       6.450       16.313         16.131       77.856       69.479       30.520       \$0.422       4.977       5.424       6.394       16.816         16.659       77.118       69.505       31.414       \$0.417       4.820       5.315       6.348       17.348         17.302       76.355       69.119       32.561       \$0.399       4.635       5.185       6.310       17.996         17.885       75.887       68.427       33.626       \$0.394       4.476       5.069       6.286       18.583         18.502       75.645       67.430       34.756       \$0.401       4.316       4.947       6.269       19.205         19.995       75.804       64.697       37.306       \$0.467       3.977       4.644       6.231       20.709         20.775       76.067       63.480       38.425       \$			64.709	27.234	1-0.679	5.742	5.984	6.784	14.449
14.633       79.531       67.337       28.284       10.568       5.453       5.764       6.606       15.307         15.158       79.097       68.461       29.013       10.515       5.282       5.638       6.516       15.836         15.632       78.542       69.125       29.721       40.475       5.131       5.532       6.450       16.313         16.131       77.856       69.479       30.520       10.442       4.977       5.424       6.394       16.816         16.659       77.118       69.505       31.414       10.417       4.820       5.315       6.348       17.348         17.302       76.355       69.119       32.561       10.399       4.635       5.185       6.310       17.996         17.885       75.887       68.427       33.626       10.394       4.476       5.069       6.286       18.583         18.502       75.645       67.430       34.756       10.401       4.316       4.947       6.269       19.205         19.995       75.804       64.697       37.306       10.422       4.158       4.814       6.254       19.869         20.775       76.067       63.480       38.425       1	14.201	79.690	66.118	27.732	10.621	5.598	5.873	6.691	14.871
15.158       79.097       68.461       29.013       10.515       5.282       5.638       6.516       15.836         15.632       78.542       69.125       29.721       10.475       5.131       5.532       6.450       16.313         16.131       77.856       69.479       30.520       10.442       4.977       5.424       6.394       16.816         16.659       77.118       69.505       31.414       10.417       4.820       5.315       6.348       17.348         17.302       76.355       69.119       32.561       10.399       4.635       5.185       6.310       17.996         17.885       75.887       68.427       33.626       10.394       4.476       5.069       6.286       18.583         18.502       75.645       67.430       34.756       10.401       4.316       4.947       6.269       19.205         19.995       75.804       64.697       37.306       10.422       4.158       4.814       6.254       19.869         20.775       76.067       63.480       38.425       10.525       3.831       4.482       6.202       21.495         22.706       76.610       61.590       40.192       1	14.633	79.531	67.337	28.284	10.568	5.453	5.764	6,606	
15.632       78.542       69.125       29.721       £0.475       5.131       5.532       6.450       16.313         16.131       77.856       69.479       30.520       £0.442       4.977       5.424       6.394       £6.816         16.659       77.118       69.505       31.414       £0.417       4.820       5.315       6.348       £7.348         17.302       76.355       69.119       32.561       £0.399       4.635       5.185       6.310       £7.996         17.885       75.887       68.427       33.626       £0.394       4.476       5.069       6.286       £8.583         18.502       75.645       67.430       34.756       £0.401       4.316       4.947       6.269       £9.205         19.161       75.621       66.213       35.929       £0.422       4.158       4.814       6.254       £9.869         19.995       75.804       64.697       37.306       £0.467       3.977       4.644       6.231       20.709         20.775       76.067       63.480       38.425       £0.525       3.831       4.482       6.202       £1.495         22.706       76.610       61.590       40.192       £	15.158	79.097	68.461	29.013	10.515	5.282			
16.131       77.856       69.479       30.520       10.442       4.977       5.424       6.394       16.816         16.659       77.118       69.505       31.414       10.417       4.820       5.315       6.348       17.348         17.302       76.355       69.119       32.561       10.399       4.635       5.185       6.310       17.996         17.885       75.887       68.427       33.626       10.394       4.476       5.069       6.286       18.583         18.502       75.645       67.430       34.756       10.401       4.316       4.947       6.269       19.205         19.161       75.621       66.213       35.929       10.422       4.158       4.814       6.254       19.869         19.995       75.804       64.697       37.306       10.467       3.977       4.644       6.231       20.709         20.775       76.067       63.480       38.425       10.525       3.831       4.482       6.202       21.495         21.626       76.345       62.449       39.393       10.602       3.695       4.305       6.156       22.352         22.706       76.610       61.590       40.192       4	15.632	78.542	69.125	29.721	10.475		5.532		
16.659       77.118       69.505       31.414       10.417       4.820       5.315       6.348       17.348         17.302       76.355       69.119       32.561       10.399       4.635       5.185       6.310       17.996         17.885       75.887       68.427       33.626       10.394       4.476       5.069       6.286       18.583         18.502       75.645       67.430       34.756       10.401       4.316       4.947       6.269       19.205         19.161       75.621       66.213       35.929       10.422       4.158       4.814       6.254       19.869         19.995       75.804       64.697       37.306       10.467       3.977       4.644       6.231       20.709         20.775       76.067       63.480       38.425       10.525       3.831       4.482       6.202       21.495         21.626       76.345       62.449       39.393       10.602       3.695       4.305       6.156       22.352         22.706       76.610       61.590       40.192       40.722       3.557       4.085       6.076       23.440         23.679       76.722       61.191       40.564       1	16.131	77.856	69.479	30.520	10.442				
17.302       76.355       69.119       32.561       10.399       4.635       5.185       6.310       17.996         17.885       75.887       68.427       33.626       10.394       4.476       5.069       6.286       18.583         18.502       75.645       67.430       34.756       10.401       4.316       4.947       6.269       19.205         19.161       75.621       66.213       35.929       10.422       4.158       4.814       6.254       19.869         19.995       75.804       64.697       37.306       10.467       3.977       4.644       6.231       20.709         20.775       76.067       63.480       38.425       10.525       3.831       4.482       6.202       21.495         21.626       76.345       62.449       39.393       10.602       3.695       4.305       6.156       22.352         22.706       76.610       61.590       40.192       10.722       3.557       4.085       6.076       23.440         23.679       76.772       61.191       40.564       11.008       3.384       3.710       5.880       25.457	16.659	77.118	69.505	31.414					
17.885       75.887       68.427       33.626       10.394       4.476       5.069       6.286       18.583         18.502       75.645       67.430       34.756       10.401       4.316       4.947       6.269       19.205         19.161       75.621       66.213       35.929       10.422       4.158       4.814       6.254       19.869         19.995       75.804       64.697       37.306       10.467       3.977       4.644       6.231       20.709         20.775       76.067       63.480       38.425       10.525       3.831       4.482       6.202       21.495         21.626       76.345       62.449       39.393       10.602       3.695       4.305       6.156       22.352         22.706       76.610       61.590       40.192       10.722       3.557       4.085       6.076       23.440         23.679       76.772       61.191       40.564       10.848       3.461       3.896       5.987       24.421         24.707       76.893       C1.031       40.564       11.008       3.384       3.710       5.880       25.457	17.302	76.355	69-119	32.561					
18.502       75.645       67.430       34.756       10.401       4.316       4.947       6.269       19.205         19.161       75.621       66.213       35.929       10.422       4.158       4.814       6.254       19.869         19.995       75.804       64.697       37.306       10.467       3.977       4.644       6.231       20.709         20.775       76.067       63.480       38.425       10.525       3.831       4.482       6.202       21.495         21.626       76.345       62.449       39.393       10.602       3.695       4.305       6.156       22.352         22.706       76.610       61.590       40.192       10.722       3.557       4.085       6.076       23.440         23.679       76.772       61.191       40.526       10.848       3.461       3.896       5.987       24.421         24.707       76.893       C1.031       40.564       11.008       3.384       3.710       5.880       25.457	17.885						5.069		
19.161       75.621       66.213       35.929       10.422       4.158       4.814       6.254       19.869         19.995       75.804       64.697       37.306       10.467       3.977       4.644       6.231       20.709         20.775       76.067       63.480       38.425       10.525       3.831       4.482       6.202       21.495         21.626       76.345       62.449       39.393       10.602       3.695       4.305       6.156       22.352         22.706       76.610       61.590       40.192       10.722       3.557       4.085       6.076       23.440         23.679       76.772       61.191       40.526       10.848       3.461       3.896       5.987       24.421         24.707       76.893       61.031       40.564       11.008       3.384       3.710       5.880       25.457	18.502								
19.995       75.804       64.697       37.306       10.467       3.977       4.644       6.231       20.709         20.775       76.067       63.480       38.425       10.525       3.831       4.482       6.202       21.495         21.626       76.345       62.449       39.393       10.602       3.695       4.305       6.156       22.352         22.706       76.610       61.590       40.192       10.722       3.557       4.085       6.076       23.440         23.679       76.772       61.191       40.526       10.848       3.461       3.896       5.987       24.421         24.707       76.893       C1.031       40.564       11.008       3.384       3.710       5.880       25.457	19.161								
20.775 76.067 63.480 38.425 10.525 3.831 4.482 6.202 21.495 21.626 76.345 62.449 39.393 10.602 3.695 4.305 6.156 22.352 22.706 76.610 61.590 40.192 10.722 3.557 4.085 6.076 23.440 23.679 76.772 61.191 40.526 10.848 3.461 3.896 5.987 24.421 24.707 76.893 C1.031 40.564 11.008 3.384 3.710 5.880 25.457	19.995				_				-
21.626 76.345 62.449 39.393 10.602 3.695 4.305 6.156 22.352 22.706 76.610 61.590 40.192 10.722 3.557 4.085 6.076 23.440 23.679 76.772 61.191 40.526 10.848 3.461 3.896 5.987 24.421 24.707 76.893 C1.031 40.564 11.008 3.384 3.710 5.880 25.457	20.775				-				
22.706 76.610 61.590 40.192 10.722 3.557 4.085 6.076 23.440 23.679 76.772 61.191 40.526 10.848 3.461 3.896 5.987 24.421 24.707 76.893 C1.031 40.564 11.008 3.384 3.710 5.880 25.457	21.626			-					
23.679 76.772 61.191 40.526 10.848 3.461 3.896 5.987 24.421 24.707 76.893 61.031 40.564 11.008 3.384 3.710 5.880 25.457									
24.707 76.893 C1.031 40.564 11.008 3.384 3.710 5.880 25.457	23.679			7	-				
- 1	24.707								
	25.804			-					

MACH NO = 25.00

CONE ANGLE = 7.00 ANGLE OF ATTACK = 10.00 P / P FREE-STREAM AT-PLANE ANGLES L/RN 0. 30 • 60. 90. 120. 150. 180. S/RN 27.196 76.871 61-158 39.852 11.546 5.598 3.283 3.328 27:964 28.509 76.586 61.335 39.237 3.167 11.916 3.271 5.449 29.287 29.908 76.213 61.580 38.552 12.361 3.282 3.024 5,293 30.696 31.363 75.869 61.856 37.884 12.851 3.312 2.901 5.136 32.162 33.138 75.567 62.152 37.187 13.420 3.361 2.780 4.949 33.951 34.729 75.409 62.348 36.672 13.861 4.787 35.554 3.408 2.691 75.340 36.388 62.469 36.220 14.236 3.454 2.612 4.626 37.225 38.410 75.369 62.537 35.744 14.582 3.503 2.531 4.440 39.263 75.486 62.559 3.542 40.219 35.361 14.799 4.287 2.468 41.085 42.099 75.660 62.567 34.993 14.948 3.580 2.412 4.141 42.979 44.049 75.853 52.568 34.640 15.043 4.004 3.61€ 2.361 44.944 46.416 76.071 62.569 34.251 15.100 3.658 2.309 3.858 47.329 48,527 76.234 62-586 33.938 15.116 3.692 2.269 3.745 49.455 50.716 76.366 62.629 33.643 15.108 2.234 3.726 3.641 51.661 52.988 76.457 62.700 33.369 15.077 3.756 2.201 3.547 53.900 76.545 55.748 62.815 33.071 15.011 3.789 2.165 3.445 56.731 76.587 62 - 934 58.214 32.834 14.927 3.363 3.813 2.136 59.215 76.616 60.779 63.064 32.610 61.799 14.821 3.835 2.107 3.285 63.447 76.539 63.201 32.397 14.696 3.856 2.079 3.209 64.488 66.699 76.667 63.361 32.163 14.541 3.879 2.047 3.1.24 67.764 69.612 76.694 63.492 31.974 14.406 2.019 3.052 3.899 70.699 72.647 76.724 63.610 31.800 14.272 3.920 1.992 2.983 73.756 76.348 76.768 77:485 63.726 31.624 14.117 3.942 1.962 ? . 90.6 63.806 79.665 76.790 31.498 13,985 3.958 1.936 2.843 80.827 83.121 76.814 63-868 31. 399 13.855 3.969 1.912 2.783 84.309 76.830 86.722 63.911 31.327 13.727 3.973 2.726 1.888 87.938 76.838 31.279 91.116 53.941 13.583 3.971 1.862 2.663 92.364 95.053 76.834 63.951 31-267 1.839 13.465 3.965 2.613 96.330 99.155 76.821 63.948 31-281 13.351 3.956 1.817 2.565 100.464 103.430 76,799 63.935 31.319 13.244 3.948 1.797 2.520 104.771 108.646 76.755 63.909 31.394 13.127 3.939 1.774 2.470 110.026 76.731 13.033 113.320 63-879 31.482 3.929 1.756 2.430 114.735 76.694 63.842 31.590 118.191 12.946 3.917 1.739 2.392 119.643 63.794 124.133 76.648 31.739 12.853 3.899 1.720 2.350 125.629 129.457 76.608 63.748 31.886 12.780 3.800 1.706 2.317 130.993 76.568 63.699 32-046 135.003 1-2.712 2.286 136.581 3.859 1.692 76.528 32.218 140.781 63.647 12.650 3.838 2.256 142.402 1.680 147.825 76.484 63.584 32.430 12.583 3.814 1.656 2.224 149.499 154.133 76.447 63.528 32-621 12.530 2.199 155.854 3.794 1.655 32.818 160.701 76.411 63.472 12.480 2.175 162.471 3.774 1.645 76.377 63.414 167.538 33.019 12.435 3.754 2.153 169.360 1.636 175.867 76.339 63.348 33.257 12.385 3.732 1.626 2.129 177.752 33,463 183.322 76.308 63.291 12.345 3.713 1.617 2.111 185.263 191.078 76.278 63.235 33-669 12.308 3.695 1.609 2.093 193.077 76.246 63.171 33.908 200.523 12.266 3.674 1.600 2.073 202.593

ANGLE OF ATTACK = 10.00

CONE ANGLE = 7.00

MACH NO = 30 - 0.0

P / P FREE-STREAM AT PLANE ANGLES L/RN 0. 30. 60. 90. 120. 150. 180. S/RN •730 218•573 202•236 162•795 119·636 86.621 67.691 61.681 1.298 **.**890 137**.**530 126**.**065 38.874 70.375 49.532 37.963 34.376 1.460 1.103 125.687 114.810 89.33-2 63.226 44.510 34.300 31.179 1.675 1.492 111.984 101.865 78.664 55.824 39.961 31.442 28.853 2.067 1.904 99.689 90 - 324 69-101 48.954 35.669 29.032 27.148 2.482 2.384 89.086 79.776 6.0 - 005 42.363 31.522 26.614 25.441 2.966 3.014 79.962 70.539 51.567 35.824 26.931 23.962 23.584 3.600 3.595 75.005 65.128 46.192 31.404 23.484 21.547 21.825 4.186 71.947 4.297 61,185 19.051 41.745 27.412 20.354 19.703 4.893 4.904 71.128 59.353 39.089 24.909 18.238 17.397 18.172 5.504 5.505 71.563 58.584 37.232 22.993 16.531 16.049 16.958 6.110 6.192 73.171 58.681 35.776 21.288 14.984 15.783 14.734 6.803 6.765 75.083 59.364 34.976 20-177 13.962 13.782 14.883 7.379 7.318 77.260 60.387 34.470 19.302 13.135 12.977 14.066 7.937 7-93-9 80-148 34.145 61.829 18-493 12.340 12.205 13.235 8.563 8.449 83.010 63,230 34.033 17.930 11.761 11.662 12.638 9.076 9.017 86.794 65.092 34.049 17: 387 11.182 11.136 12.071 9.649 9.483 90.301 66.923 34.165 16.997 10.755 10.756 11.678 10.118 9.930 93.898 68.982 34.357 16.663 10.382 10.425 11.352 10.569 10.433 98.017 71.645 34.658 16.331 10.003 10.088 11.033 11.075 10.849 101.346 74 - 108 34.970 16.089 9.715 9.831 10.798 11.494 11.321 104.869 77.129 35.386 15.848 9.413 9.560 10.555 11.970 11.717 107.508 79.789 35.784 15-672 9.176 9.347 19.364 12.369 12.108 109.750 82.461 36.217 15.518 8.952 9.149 10.187 12,763 12.560 111.828 85.534 36.768 15.361 8.703 8.933 9.992 13.218 12.947 113.135 88.080 8.497 37.284 15.244 8.758 9.835 13.608 13.337 114.008 90.503 37.845 15.138 8.295 8.592 9.686 14.001 13.798 114.517 93.121 38.566 15-027 8.405 8.062 9.523 14.465 14.202 114.560 95.135 39.254 14.942 7.862 8.251 9.394 14.873 14.689 114.210 97.140 40.155 14.852 7.627 8.075 9.255 15.364 15.125 113.502 98.499 41.029 14.783 7.423 7.927 9.149 15.802 15.580 112.745 99.466 42.014 14.722 7.215 7.780 9.056 16.261 16.142 111.510 10-0.04-3 43.327 14.661 6.966 7.606 8.965 16.828 16.651 110.398 100.030 44.597 14.520 6.747 7.456 8.903 17.340 17-181 109-422 99.535 45.985 14.592 6.528 7.303 8.856 17.874 17-832 108-618 98.338 47.746 14.574 6.271 7.118 8.816 18.529 18.425 108.286 95.829 49.364 14.576 6.049 6.950 8.790 19.127 19.167 108.298 94.688 51.340 14.601 5.790 6.736 8.763 19.875 19.856 108.572 92.757 53.056 14.645 5.573 6.533 8.735 20.569 20.602 108.992 90.943 54.706 14.712 5.363 6.310 8.693 21.320 21.557 109.508 89.165 56.373 14.822 5.136 6.023 8.618 22.282 22.437 109.872 88.084 57.402 14.945 4.965 5.762 8.526 23.169 23.510 110.175 87.390 58.017 15.120 4.800 5.458 8.387 24.251 24.482 110.377 87.177 58.088 4.685 15.315 5.200 8.243 25.229 25.515 110.506 87.201 57.802 15.577 4.595 4.949 8.080 26.270

CONF ANGLE = 7.00

ANGLE OF ATTACK = 10.00

MACH NO = 30.00 PLANE ANGLES P / P FREE-STREAM AT S/RN 180. 150. 90. 120. 60. 30. 0. L/RN 27.584 7.869 4.668 4.523 15.992 87.409 57.085 25.819 110.415 28.819 7.671 4.495 4.442 56.199 16.459 28.044 110.025 87.689 7.459 30.173 4.232 4.499 17.079 55.154 88.059 29.389 109.446 7.203 31.845 4.022 4.544 17.902 53.955 31.048 108.819 88.570 33.343 5.978 4.603 3.870 18.622 53.040 32.535 198.494 88.976 6.709 35.170 3.718 4.681 19.393 52.140 89.346 34.349 108.100 6.476 36.809 4.746 3.604 19.951 89.535 51.482 35.975 107.989 38.515 3.502 6.243 4.896 20.399 50.889 37.669 108.012 39.618 40.593 5.979 3.394 4.858 20.781 50.243 89.646 39.730 108.209 5.763 42.447 4.918 3.312 20.997 49.713 89.544 41.571 108.477 44.699 5.529 4.975 3.226 49.121 21.148 43.806 108.820 89.624 46.706 5.347 3.161 21.210 5.022 48.641 89.610 45.798 109.099 5.181 48.786 3.104 5.068 21.228 89.620 48.189 47.863 109.341 51.309 5.006 3.044 5.118 21.205 47.699 89.683 50.367 109.562 53.559 4.871 2.997 5.157 21.150 47.311 52.600 109.697 89.784 4.746 :55.894 2.953 5.190 21.057 89.924 46.951 54.918 109.782 58.733 4.609 5.224 2.904 20.900 46.554 57.736 109.837 90.124 4.497 61.271 2.863 5.249 20.727 46.254 90.313 60.255 109.857 64.361 4.370 2.816 5.277 20.496 45.912 63.322 109.897 90.547 67.127 4.265 2.775 5.301 20.291 45.633 66.067 109.927 90.748 70.008 2.735 4.163 20.088 5.327 45.367 68.926 109.963 90.939 2.690 4.047 73.519 19.855 5.357 45.083 72.411 110.015 91.137 76.664 3.952 2.652 5.380 19.657 44.871 75.533 110.054 91.280 79.940 3.861 5.398 2.616 44.694 19.460 91.396 78.785 110.112 83.935 3.760 2.574 19.235 5.408 44.535 91.497 82.750 110.157 3.679 87.514 2.539 5.407 19.047 44.441 91.557 86.302 110.193 3.590 91.878 2.499 5.398 44.383 18.837 90.633 110.195 91.597 95.787 2.466 3.518 5 4 3 8 6 44.375 18.664 91.608 94.513 110.189 3.450 99.859 2.434 18.500 5.374 44.404 91.602 98.555 110.169 3.375 104.824 2.398 18.328 5.360 44.483 91.577 103.483 110.130 7.314 109.273 2.369 5.346 44.586 18.177 91.543 107.899 110.086 3.247 114.698 2.338 5.326 18-022 44.747 113.283 110.027 91.490 3.193 119.558 5.302 2.313 17.901 44.917 118 - 107 109 - 972 91.436 3.142 124.620 5.273 2.289 17.789 45.114 91.375 123.131 109.914 3.086 130.791 2.263 5.234 17.670 91.296 45.373 129.257 109.847 3.040 136.319 2.242 5.200 45.615 17.577 91.224 134.743 109.789 2.998 142.074 2.223 5.166 17.491 45.874 140.455 109.733 91.148 2.951 149.088 2.202 5.128 17.400 46.192 91.056 147.417 109.670 2.914 155.366 2.186 17.329 5.096 46.477 90.974 153.648 109.618 2.874 163.014 2.168 5.060 17.253 46.819 90.877 161.240 109.560 2.842 169.858 2.154 5.029 17.193 47.118 90-794 168.033 109.512 2.812 176.978 2.141 5.000 17-138 47.420 175.100 109.466 90.711 2.779 185.648 2.126 4.957 17.079 47.775 183.704 109.414 90.614 2.753 193.401 2.114 4.938 17.031 48.079 90.532 191.399 109.372 2.099 2.724 202.837 4.906 48,431 16.979 90-438 200.766 109.326

A. C.

## NSHC/HOL/TR 75-45

		n / n	EDEE_01	REAM AT	PLANE	ANGLES		
1.404	٠.		60.	90 •	120.	1-50	180.	S/RN
L/RN	-0 •	30•	6 U +	70 •	120•	1-50 •	100.	37 1311
C 9 7	4.380	4.114	3.454	2.696	2.081	1.708	1.586	1.249
•683		3.403	2.829	2.182	1.665	1.355	1.255	1.323
•754	3.635	2.870	2.365	1.804	1.363	1.102	1.018	1.386
.816	3.076			1.548	1.157	•933	.861	1.542
•971	2.735	2.539	2-063	1.540	1.149	•926	.856	1.682
1.109	2.737	2.537	2.056		1.144	•925		
1.268	2.728	2.526	2.041	1.529			.867	
1.517	2.690	2.488	2.007	1.506	1.137		• 877	
1.732	2.645	2.446	1.970	1.488	1.127	•936	.890	2.641
2.059	2.581	2.383	1-914	1 • 437	1.105	•937	•	2.919
2.334	2.529	2.327	1:• 858	1.401	1.089		•906	3.223
2.635		2.285	1.811	1.364	1.073		•915	
3.074		2.247	1.769	1.321	1.047	• 943	•925	3.667
3.431		2.228	1.742	1.295	1.026	• 942	.934	4.026
		2.216	1.719	1.272	1.006	•938	•941	4.409
	• • • • •	2.210	1.698	1.245	• 983	•929	• 947	4.953
		2.211	1-688	1.228	•970	• 923	• 948	5.387
5.386		2.219	1.678	1.209	• 955	• <u>91.7</u>	• 947	6.001
5.867	2.483	2.228	1-674	1.198	• 946	•91.5	. 948	6.486
6 • 367	2.500	2.239	1.673	1.189	•937	• 916	•951	6.991
7.061	2.523	2.256	1.673	1.179	• 926	·917	• 958	7.693
7.603	2.541	2.270	1.675	1.173	•920	• 91 9	• 964	8.240
8.353	2.563	2.287	<b>1</b> ₌• 679	1.167	• 91 2	•922	• 973	8.997
8.936	2.578	2.300	1.683	1.163	• 908	• 924	• 979	9.586
9.536	2.592	2.313	1.687	1.159	• 904	<b>-925</b>	•984	10.192
10.365	2.509	2.329	1.693	1.156	•899	-928	•989	11.029
11.008	2.620	2.340	1.698	1.154	•896	<b>-930</b>	•992	11.678
11.670	2.630	2.350	1-703	1.152	•893	•931	• 996	12.346
12.582	2.641	2.362	1.709	1.151	.890	.933	1.000	13.268
13.289	2.649	2.370	1.714	1.150	.887	• 935	1.003	13.982
14.264	2.657	2.379	1.720	1.150	.885	•₌93.7	1.007	14.966
15.020	2.663	2.385	1.724	1.150	.883	-938	1.010	15.730
15.798	2.667	2.391	1.729	1.150	.881	•93.9	1.013	16.515
16.872	2.672	2.397	1.735	1.151	086.	.941	1.017	17.599
17.705	2.675	2.401	1.739	1.152	.879	-942	1.019	18.441
1-8 - 564		2.405		1.152	.878	-943	1.021	19.308
19.751	2.680	2.409	1:• 749	1.154	.877	. 944	1.023	20.507
20.675	2.681	2.411	1.753	1.154	.877	-944	1.025	21.440
21.953	2.682	2.414	1.758	1.156	.876	945	1.026	22.730
22.947	2.682	2.415	1.762	1.156	.876	-945	1.027	23.735
23.975	2.682	2.415	1.766	1.157	•876	946	1.028	24.773
25.399	2.682	2.417	1.771	1.158	.877	946	1.029	26.210
26.508	2.682	2.418	1.774	1.159	.877	•94.6	1.029	27.330
28:045	2.682	2.418	1.779	1.160	•877	-947	1.029	28.882
_		2.418	1.782	1.161	-878	947	1.029	30.092
29.243	2.582		1.785	1.161	*878	•947	1.029	31.343
30.482	2 • 5 82	2.418	70102	TATOT	# 01 0	- 77 (	7405	

L/RN	MACH	1 NO =	3.50 CC	NE ANGLE	= 8.00	A NGL E	E OF ATT	/CK = 10	•-O O
L/RN				-0-F CT	SEAM AT	DI ANE	ANGLES		
1.78N   0.   30.   50.								180.	SZRN
32.199	L/RN	0•	30•	60•	900	1204			
32.199			<del></del>	4 700	4 462	. 879	948	1.029	33.077
33.538	32.199								34.430
34.923	33.538								
36.842       2.680       2.415       1.99       1.164       882       .948       1.028       39.278         38.339       2.6679       2.414       1.803       1.165       .883       .949       1.027       41.374         42.034       2.679       2.411       1.805       1.166       .884       .949       1.027       44.699         43.708       2.679       2.412       1.808       1.167       .885       .950       1.027       47.043         47.838       2.6679       2.412       1.808       1.167       .885       .950       1.026       48.870         50.348       2.680       2.410       1.810       1.168       .886       .951       1.026       53.381         52.305       2.660       2.410       1.810       1.172       .888       .952       1.026       53.831         57.135       2.661       2.409       1.809       1.172       .888       .952       1.026       62.753         561.585       2.682       2.409       1.807       1.173       .888       .952       1.026       62.753         61.735       2.681       2.409       1.807       1.175       .889       .953	34-923								
38.3339         2.680         2.414         1.805         1.165         .883         .949         1.027         41.374           40.415         2.679         2.414         1.805         1.165         .884         .949         1.027         44.699           43.708         2.679         2.412         1.808         1.167         .885         .950         1.027         47.043           46.029         2.679         2.412         1.809         1.167         .885         .950         1.026         48.70           47.838         2.679         2.411         1.810         1.168         .886         .951         1.026         51.405           52.305         2.680         2.410         1.810         1.169         .886         .951         1.026         55.424           54.329         2.681         2.410         1.810         1.171         .887         .952         1.026         55.424           59.323         2.681         2.409         1.809         1.172         .888         .952         1.026         58.258           59.323         2.681         2.409         1.809         1.173         .888         .952         1.026         62.783	36.842								
40.415	38.339								41.374
42.034	40415				_				
43.708	42.034								44.699
46.029	43.708								47.043
\$\frac{4}{50.348}\$	46.029								
50.348         2.680         2.410         1.810         1.169         .886         .951         1.026         53.381           54.329         2.680         2.410         1.810         1.169         .887         .951         1.026         58.424           57.135         2.681         2.410         1.810         1.171         .887         .952         1.026         62.425           59.323         2.681         2.409         1.809         1.172         .888         .952         1.026         62.753           64.723         2.682         2.409         1.809         1.173         .888         .952         1.026         62.753           67.170         2.683         2.409         1.807         1.175         .889         .953         1.026         68.392           70.563         2.684         2.409         1.804         1.178         .890         .954         1.026         71.818           73.209         2.684         2.409         1.802         1.180         .890         .954         1.026         77.254           75.946         2.685         2.409         1.781         1.818         .891         .955         1.026         81.087	47.838								51.405
52.305         2.680         2.410         1.810         1.169         .887         .951         1.026         55.424           57.135         2.681         2.410         1.810         1.171         .887         .952         1.026         60.468           59.323         2.681         2.409         1.809         1.172         .888         .952         1.026         62.458           61.585         2.682         2.409         1.809         1.173         .888         .952         1.026         62.753           64.723         2.682         2.409         1.807         1.175         .889         .953         1.026         65.921           67.170         2.683         2.409         1.805         1.177         .890         .954         1.026         71.818           73.209         2.684         2.409         1.801         1.180         .890         .954         1.026         77.254           75.946         2.684         2.409         1.801         1.182         .890         .955         1.026         81.087           79.741         2.686         2.409         1.791         1.183         .891         .955         1.025         81.084	50.348								
54,329       2.680       2.410       1.810       1.171       .887       .952       1.026       58.258         59,323       2.681       2.409       1.809       1.172       .888       .952       1.026       62.753         61.585       2.682       2.409       1.809       1.173       .888       .952       1.026       62.753         64.723       2.682       2.409       1.807       1.175       .889       .953       1.026       68.392         67.170       2.683       2.409       1.807       1.175       .889       .953       1.026       77.4491         70.563       2.683       2.409       1.805       1.177       .890       .954       1.026       71.418         75.946       2.684       2.409       1.802       1.180       .890       .955       1.026       74.491         79.741       2.685       2.409       1.791       1.183       .891       .955       1.026       81.087         82.701       2.686       2.409       1.796       1.184       .891       .955       1.025       84.076         85.763       2.687       2.409       1.794       1.187       .891       .956	52-305								55.424
57.135       2.681       2.409       1.809       1.172       .888       .952       1.026       60.468         59.323       2.681       2.409       1.809       1.173       .888       .952       1.026       62.753         61.585       2.682       2.409       1.808       1.174       .889       .953       1.026       62.753         64.723       2.683       2.409       1.807       1.175       .889       .953       1.026       68.392         67.170       2.683       2.409       1.807       1.175       .889       .954       1.026       71.818         70.563       2.684       2.409       1.804       1.178       .890       .954       1.026       74.491         75.946       2.684       2.409       1.802       1.180       .890       .954       1.026       77.244         79.741       2.685       2.409       1.799       1.183       .891       .955       1.025       84.076         82.701       2.686       2.409       1.798       1.184       .891       .955       1.025       87.458         90.009       2.687       2.409       1.794       1.187       .891       .956       <	54.329								58.258
59.323       2.681       2.409       1.809       1.173       .888       .952       1.026       62.753         64.723       2.682       2.409       1.808       1.174       .889       .953       1.026       65.921         67.170       2.683       2.409       1.807       1.175       .889       .953       1.026       68.392         70.563       2.683       2.409       1.805       1.177       .890       .954       1.026       74.491         73.209       2.684       2.409       1.804       1.180       .890       .954       1.026       77.254         75.946       2.685       2.409       1.801       1.182       .890       .955       1.026       77.254         82.701       2.685       2.409       1.799       1.183       .891       .955       1.025       87.168         96.009       2.687       2.409       1.798       1.184       .891       .955       1.025       87.468         97.915       2.687       2.409       1.794       1.187       .891       .956       1.025       99.439         97.915       2.688       2.410       1.792       1.189       .891       .957       <									
61.585	59.323								62.753
64.723									65.921
67.170	64:•-723	2.682							68.392
70.563	67-170	2.683							
73.209	78.563	2.683					-		
75.946	73:-209	2.684							
79.741       2.685       2.409       1.799       1.183       .891       .955       1.025       84.076         82.701       2.686       2.409       1.798       1.184       .891       .955       1.025       87.168         90.009       2.687       2.409       1.796       1.186       .891       .956       1.025       91.455         93.321       2.687       2.409       1.794       1.187       .891       .956       1.025       .94.800         97.915       2.687       2.410       1.792       1.189       .891       .957       1.025       103.058         101.499       2.688       2.410       1.789       1.192       .891       .957       1.025       103.058         105.206       2.688       2.411       1.787       1.193       .891       .957       1.025       106.802         110.348       2.688       2.411       1.787       1.193       .891       .957       1.025       121.606         114.360       2.689       2.411       1.783       1.194       .891       .958       1.025       121.606         124.269       2.689       2.412       1.770       1.99       .891       .958 <td></td> <td>2.584</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		2.584							
82-701       2.686       2.409       1.799       1.184       .891       .955       1.025       87.168         85.763       2.687       2.409       1.796       1.186       .891       .956       1.025       91.455         93.321       2.687       2.409       1.794       1.187       .891       .956       1.025       94.800         97.915       2.687       2.410       1.792       1.189       .891       .956       1.025       99.439         101.499       2.688       2.410       1.790       1.190       .891       .957       1.025       103.058         105.206       2.688       2.411       1.787       1.193       .891       .957       1.025       106.802         114.360       2.688       2.411       1.785       1.194       .891       .957       1.025       116.046         119.926       2.689       2.411       1.783       1.196       .891       .958       1.025       121.666         124.269       2.689       2.412       1.770       1.199       .891       .958       1.024       130.588         134.994       2.689       2.412       1.777       1.200       .891       .958 </td <td></td> <td>2.685</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		2.685							
85.763       2.685       2.409       1.798       1.184       .891       .956       1.025       91.455         90.009       2.687       2.409       1.794       1.187       .891       .956       1.025       .94.800         93.321       2.687       2.410       1.792       1.189       .891       .956       1.025       .99.439         97.915       2.688       2.410       1.790       1.190       .891       .957       1.025       103.058         105.206       2.688       2.410       1.789       1.192       .891       .957       1.025       110.806       .802         110.348       2.688       2.411       1.787       1.193       .891       .957       1.025       110.056       .802         114.360       2.688       2.411       1.785       1.194       .891       .957       1.025       126.046         124.269       2.689       2.411       1.783       1.196       .891       .958       1.025       126.052         128.761       2.689       2.412       1.779       1.199       .891       .958       1.024       136.882         134.994       2.689       2.412       1.777       1.20		2.686							
90.009		2.685							
93.321	-	2.687							
97.915	_	2.687							99.439
101.499       2.688       2.410       1.790       1.190       1.8190       .891       .957       1.025       106.802         105.206       2.688       2.411       1.787       1.193       .891       .957       1.025       11.095       11.095       11.095       11.095       11.095       11.025       11.004       .891       .957       1.025       11.004       .004 <t< td=""><td></td><td>2.687</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>		2.687							
105.206	-	2.688			-			1.025	
110.348       2.688       2.411       1.787       1.193       .891       .957       1.025       116.046         114.360       2.688       2.411       1.785       1.194       .891       .957       1.025       121.666         119.926       2.689       2.411       1.782       1.197       .891       .958       1.025       126.052         124.269       2.689       2.412       1.780       1.198       .891       .958       1.024       130.588         128.761       2.689       2.412       1.779       1.199       .891       .958       1.024       136.882         134.994       2.689       2.412       1.777       1.200       .891       .958       1.024       141.793         139.857       2.689       2.412       1.777       1.200       .891       .958       1.024       141.793         144.888       2.689       2.413       1.776       1.201       .891       .958       1.024       153.924         151.869       2.689       2.413       1.773       1.202       .891       .958       1.024       159.425         157.317       2.689       2.413       1.772       1.204       .891 <t< td=""><td></td><td>2.688</td><td></td><td></td><td></td><td></td><td></td><td>1.025</td><td>111.995</td></t<>		2.688						1.025	111.995
114.360       2.688       2.411       1.783       1.196       .891       .957       1.025       121.666         119.926       2.689       2.411       1.783       1.196       .891       .958       1.025       126.052         124.269       2.689       2.412       1.780       1.198       .891       .958       1.024       130.588         128.761       2.689       2.412       1.779       1.199       .891       .958       1.024       136.882         134.994       2.689       2.412       1.777       1.200       .891       .958       1.024       141.793         139.857       2.689       2.413       1.776       1.201       .891       .958       1.024       146.874         144.888       2.689       2.413       1.774       1.201       .891       .958       1.024       153.924         157.317       2.689       2.413       1.773       1.203       .891       .958       1.024       157.057         164.875       2.689       2.413       1.772       1.204       .891       .959       1.024       167.057         170.773       2.689       2.414       1.771       1.204       .891 <t< td=""><td></td><td>2.688</td><td></td><td></td><td></td><td></td><td></td><td>1.825</td><td>116.046</td></t<>		2.688						1.825	116.046
119.926       2.689       2.411       1.783       1.196       .891       .958       1.024       130.588         124.269       2.689       2.412       1.780       1.198       .891       .958       1.024       130.588         128.761       2.689       2.412       1.779       1.199       .891       .958       1.024       136.882         134.994       2.689       2.412       1.777       1.200       .891       .958       1.024       141.793         139.857       2.689       2.413       1.776       1.201       .891       .958       1.024       146.874         144.888       2.689       2.413       1.774       1.202       .891       .958       1.024       153.924         157.317       2.689       2.413       1.773       1.203       .891       .958       1.024       159.425         164.875       2.689       2.413       1.772       1.204       .891       .959       1.024       167.057         176.875       2.689       2.414       1.771       1.204       .891       .959       1.024       173.013         176.875       2.689       2.414       1.770       1.205       .891 <t< td=""><td></td><td>2.688</td><td></td><td></td><td></td><td></td><td></td><td>1.025</td><td>121.666</td></t<>		2.688						1.025	121.666
124.269       2.689       2.411       1.782       1.197       .891       .958       1.024       130.588         128.761       2.689       2.412       1.779       1.199       .891       .958       1.024       136.882         134.994       2.689       2.412       1.777       1.200       .891       .958       1.024       141.793         139.857       2.689       2.413       1.776       1.201       .891       .958       1.024       146.874         144.888       2.689       2.413       1.774       1.202       .891       .958       1.024       153.924         157.317       2.689       2.413       1.773       1.203       .891       .958       1.024       159.425         164.875       2.689       2.413       1.772       1.204       .891       .959       1.024       167.057         164.875       2.689       2.414       1.771       1.204       .891       .959       1.024       173.013         176.875       2.689       2.414       1.770       1.205       .891       .959       1.024       187.725         185.342       2.689       2.414       1.768       1.206       .891 <t< td=""><td>119.926</td><td>2.589</td><td></td><td></td><td>1.196</td><td></td><td></td><td>1.025</td><td>126.052</td></t<>	119.926	2.589			1.196			1.025	126.052
128.761       2.689       2.412       1.780       1.190       .891       .958       1.024       136.882         134.994       2.689       2.412       1.777       1.200       .891       .958       1.024       141.793         139.857       2.689       2.412       1.777       1.201       .891       .958       1.024       146.874         144.888       2.689       2.413       1.774       1.202       .891       .958       1.024       153.924         157.317       2.689       2.413       1.773       1.203       .891       .958       1.024       159.425         164.875       2.689       2.413       1.772       1.204       .891       .959       1.024       167.057         164.875       2.689       2.414       1.771       1.204       .891       .959       1.024       173.013         170.773       2.689       2.414       1.770       1.205       .891       .959       1.024       179.175         185.342       2.689       2.414       1.769       1.206       .891       .959       1.024       187.725         185.342       2.689       2.414       1.768       1.206       .891 <t< td=""><td></td><td>2.689</td><td></td><td></td><td>1.197</td><td></td><td></td><td>1.024</td><td>130.588</td></t<>		2.689			1.197			1.024	130.588
134.994       2.689       2.412       1.779       1.199         139.857       2.689       2.412       1.777       1.200       .891       .958       1.024       146.874         144.888       2.689       2.413       1.776       1.201       .891       .958       1.024       146.874         157.317       2.689       2.413       1.773       1.202       .891       .958       1.024       159.425         157.317       2.689       2.413       1.773       1.203       .891       .959       1.024       167.057         164.875       2.689       2.413       1.772       1.204       .891       .959       1.024       167.057         170.773       2.689       2.414       1.771       1.204       .891       .959       1.024       173.013         176.875       2.689       2.414       1.770       1.205       .891       .959       1.024       187.725         185.342       2.689       2.414       1.768       1.206       .891       .959       1.024       187.725         185.342       2.689       2.414       1.768       1.206       .891       .959       1.024       187.725 <td< td=""><td></td><td>2.689</td><td>2.412</td><td></td><td></td><td></td><td></td><td>1.024</td><td>136.882</td></td<>		2.689	2.412					1.024	136.882
139.857       2.689       2.412       1.777       1.200       891       .958       1.024       146.874         144.888       2.689       2.413       1.774       1.202       891       .958       1.024       153.924         151.869       2.689       2.413       1.773       1.203       .891       .958       1.024       159.425         157.317       2.689       2.413       1.772       1.204       .891       .959       1.024       167.057         164.875       2.689       2.414       1.771       1.204       .891       .959       1.024       173.013         176.875       2.689       2.414       1.770       1.205       .891       .959       1.024       187.725         185.342       2.689       2.414       1.769       1.206       .891       .959       1.024       187.725         185.342       2.689       2.414       1.768       1.206       .891       .959       1.024       187.725         185.342       2.689       2.414       1.768       1.206       .891       .959       1.024       187.725         191.950       2.689       2.414       1.768       1.206       .891	134-994	2.689	2.412						
144.888       2.689       2.413       1.776       1.201       .891       .958       1.024       153.924         151.869       2.689       2.413       1.774       1.202       .891       .958       1.024       159.425         157.317       2.689       2.413       1.772       1.204       .891       .959       1.024       167.057         164.875       2.689       2.414       1.771       1.204       .891       .959       1.024       173.013         176.875       2.689       2.414       1.770       1.205       .891       .959       1.024       187.725         185.342       2.689       2.414       1.769       1.206       .891       .959       1.024       187.725         185.342       2.689       2.414       1.768       1.206       .891       .959       1.024       187.725         191.950       2.689       2.414       1.768       1.206       .891       .959       1.024       194.398         191.950       2.689       2.414       1.768       1.206       .891       .959       1.024       194.398		2.689	2.41-2					1.024	146.874
151.869       2.689       2.413       1.774       1.202       .891       .958       1.024       159.425         157.317       2.689       2.413       1.773       1.204       .891       .959       1.024       167.057         164.875       2.689       2.414       1.771       1.204       .891       .959       1.024       173.013         176.875       2.689       2.414       1.770       1.205       .891       .959       1.024       187.725         185.342       2.689       2.414       1.769       1.206       .891       .959       1.024       187.725         191.950       2.689       2.414       1.768       1.206       .891       .959       1.024       194.398         191.950       2.689       2.414       1.768       1.206       .891       .959       1.024       194.398         191.950       2.689       2.414       1.768       1.206       .891       .959       1.024       203.656	144.888							1.024	153.924
157.317 2.689 2.413 1.773 1.203 .691 .959 1.024 167.057 164.875 2.689 2.414 1.771 1.204 .891 .959 1.024 173.013 170.773 2.689 2.414 1.770 1.205 .891 .959 1.024 179.175 176.875 2.689 2.414 1.769 1.206 .891 .959 1.024 187.725 185.342 2.689 2.414 1.768 1.206 .891 .959 1.024 194.398 191.950 2.689 2.414 1.768 1.206 .891 .959 1.024 194.398		2.689	2.413					1.024	159.425
164.875     2.689     2.413     1.772     1.204     .891     .959     1.024     1.73.013       170.773     2.689     2.414     1.771     1.204     .891     .959     1.024     1.79.175       176.875     2.589     2.414     1.769     1.205     .891     .959     1.024     1.87.725       185.342     7.689     2.414     1.768     1.206     .891     .959     1.024     1.94.398       191.950     2.689     2.414     1.768     1.206     .891     .959     1.024     1.024     203.656			2.413				_	1.024	167-057
170.773 2.689 2.414 1.771 1.204 .691 .959 1.024 1.79.175 1.76.875 2.589 2.414 1.770 1.205 .891 .959 1.024 1.87.725 1.85.342 2.689 2.414 1.769 1.206 .891 .959 1.024 1.94.398 1.91.950 2.689 2.414 1.768 1.206 .891 .959 1.024 1.94.398		2-689	2.413					1.024	173.013
176.875 2.689 2.414 1.770 1.205 .891 .959 1.024 £87.725 185.342 7.689 2.414 1.768 1.206 .891 .959 1.024 £94.398 1.91.950 2.689 2.414 1.768 1.206 .891 .959 1.024 £94.398								1.024	179.175
185.342 2.689 2.414 1.769 1.206 .891 .959 1.024 £94.398 191.950 2.689 2.414 1.768 1.206 .891 .959 1.024 £94.398			2.414					4 - 1124	187.725
191.950 2.689 2.414 1.768 1.206 .891 .959 1.024 203.656								1 = 024	494.398
			2.414	1.768	1.206			1.024	203.656
	201-118			1.767	1.297	<u>•</u> :091	<b>4 7</b> 7-7	14054	*******

1	MACH NO =	5.00	CONE A	NGLE =	8.00	ANGLE	F ATTA	CK = 10	• 0 0
1.401				-STREAM			IGLES		<b></b>
LZRI	V 0.	30•	60	• 90	• 1	120. 1	-50.	180.	SZRN
.70	7.465	6.965	5.73	8- 4.36	in T.	270 2.	626	2.417	1.274
.78		5.637		5 3.44				1.862	1.349
.876		4.480	3.59					1.396	1.447
1.05		4.296	3.42					1.331	1.627
1.27		4.163	3.30					1.290	1.847
1.52		4.000	3.16					1.274	2.101
1.81:		3.823	3.00					1.261	2.390
2.13		3.654		5 2.07				1.244	2.715
2.487		3.492		6 1.96				1.229	3.073
2.87		3.383						1.212	3.463
3.287		3.305						1.194	3.881
3.726		3.257	2.41	5 1.69				1.171	4.325
4.188		3.234				_			4.791
	3.678		2.32		6 1.				5.276
5.165	3.715			7 1.54				1.089	5.778
5.548	3.751	3.266	2.29	8 1.52	4 1.				6.165
6.073	3 3.806								6.694
6.61				5 1.47	7 1.			1.051	
7.166		3.388	2.30	3 1.46	1 1.	047		1.043	
7.738				5- 1-44	8 1.	028 .	98-7	1.037	8.375
8 • 327		3.489				012 .	976	1.030	8.971
8.936		3.539		9 1.43			967	1.024	9.586
9.566		3.588	2.369				959	1.019	10.222
10.219		3.634	2.39						10.882
10.898		3.677	2.41						11.567
11.606		3.716	2.43						12.281
12.345		3.753	2,462						13.028
13.120		3.785	2 • 48						13.811
13.937		3.815	2.51						14.636
14.792		3.841	2.537						15.500
15.450	4•400 4•409	3.859	2.55						16.164
17.27.7		3.878 3.892	2.578						17.072
			2.599			891	91-9		18.009
19.225	4.418 4.420	3.907							18.976
20.250		3.910	2 - 638						19.976
21.312		3.910	2 • 65 6 2 • 67 8	_					21.011
22.41.3		3.909	2 • 688						22.083 23.195
23.555		3.906	2.703						24.348
24.740		3.903	2.71						25.545
25.970		3.900	2.730			_			26 • 78.7
27 . 247		3.896	2.741						28 • 076
28.573		3.892	2.751						29.416
29.950		3.888	2.760				-		30.806
31.380		3.884	2.766						32.251
						-			- · · -

				= 8.00	ANGLE	OF ATTA	CK = 10	.00
MACH	NO = '	5.00 CO	NE ANGLE	= 0.00	7(10412			
		D / P	FREE-STR	EAM AT	PLANE	ANGLES	4.00	S/RN
	c	30 •	60•	90•	120•	150 •	180-	SZKI
L/RN	G •	304					4 06 9	33'-370
	4.400	3.881	2.770	1.517	.879	.885		34.913
32.489	4.398	3.877	2.774	1.521	.881	.884	1.045	36.516
34.017	4.397	3.874	2.776	1.525	.883	.883		38.180
35.694	4.396	3.871	2.777	1.530	.885	•883		39.909
37 • 252 38 • 964	4.395	3.868	2.776	1.535	.887	.882		41.704
40.742	4.395	3.866	2 • 774	1.540	.889	.882 .882	1.040	43.569
42.589	4.396	3.864	2.770	1.546	.891	.882	1.039	45.506
44.507	4.396	3.863	2.766	1.552	.893	.882	1.038	47.518
46.499	4.397	3.862	2-762	1.557	.895	.883	1.037	49.608
48.569	4.399	3.861	2-756	1.563	.896 .898	.883	1.036	51.778
50.718	4.400	3.861	2.750	1.569	.899	.884	1.036	54.033
52.950	4.402	3.861	2-744	1.575	.901	.884	1.035	56.374
55.269	4.404	3.862	2.737	1.580	.902	.885	1.034	58.807
57.678	4.477	3.862	2.730	1.586 1.591	.902	.885	1.033	61.333
60.180	4.409	3.863	2.723	1.591	.903	.886	1.033	63.292
62.120	4.411	3.864	2.717	1.599	.904	.886	1.032	65.993
64 - 7-95	4.413	3.865	2.710	1.603	.904	.887	1.032	68.799
67.573	4.415	3.867	2: 703	1.607	904	.888	1.031	71.714
70.460	4.417	3,869	2.696	1.610	.904	.888	1.031	74.743
73.460	4.419	3.871	2.689	1.613	905	.889.	1.030	77.891
76.576	4.421	3.873	2 • 683 2 • 676	1.616	.905	.889	1.030	81.162
79.815	4.423	3.875	2.670	1.618	.905	.890	1.030	84.561
83.181	4.424	3.877	2.664	1.620	•905	.890	1.029	88.093
86.679	4.426	3.879 3.880	2.659	1.621	.905	.891	1.029	91.765 95.581
90.315	4.427	3.882	2 653	1.623	• 905·	.891	1.028	99.548
94.094	4.428	3.884	2.649	1.624	•905	.892	1.028	
98.023	4•429 4•429		2.644	1.625	.905	.892	1 • 0 4 0	103.672 107.959
102.107	4.429		2.640	1.625	•906	. 893	1.027	112.416
106.352	4.430	3.887	2.636	1.626	• 906	.893	1 - 027	115.875
110.766	4.430		2.634	1.626	. 406	. 894	1:#:UC/ 4 :027	120.646
114.191	4.430		2.631	1.626	.906	.894	4 -027	125.607
118.916	4.430		2.628	1.626	.907	• 895 • 895	1.026	130.766
123.829	4.429		2.626	1.626	.907	.895 .896	1-1026	136.130
128 • 937 134 • 249	4.429		2.624	1.626	.908	.896	1-826	141.707
139.772	4.428		2.623	1.625	.908	.896	1.026	147.507
145.515	4.428		2.622	1.624	.909	.897	1.026	153.538
151-487	4.427	3.891	2.621	1.624	•909	.897	1.026	159.809
157.697	4.426	3.891	2.621	1.623	•909 •910	.897	1.026	166.330
164-155	4.425	3.891	2.620	1.622	.910	.898	1.026	173.111
170-870	4.424	3.891	2.621	1.621	•914	.898	1026	180.162
177-853	4.423	3.890	2.621	1.620	.911	.898	1026	187.494
185-113	4.422		2.622	1.619 1.617	.912	.898	1-026	195.118
192-663	4.421		2.623	1.616	.912	.899		203.045
200.513	4.423	3.889	2.524	T# ÓTO				

MACH NO = 10.00 CONF ANGLE = 8.00 ANGLE OF ATTACK = 10.00

		p /	P FREE-S	TREAM AT	r PLANE	ANGLES		
L/RN	0.	30-	60.	90.	120.	150.	180.	SZRN
	3 •	200	000	J 0.4	100	1500	1000	GV SIV
•725	25.572	23.711	19.197	14.228	10.396	8.181	7.474	1.292
.854	16.951	15.600	12.369	8-927	6.364	4.920	4.469	1.424
1.009	16.005	14.683	11.550	8.269	5.869	4.541	4.131	1.580
1.250	15.085	13.792	10.779	7.715	5.520	4.312	3.939	1.824
1.600	13.821	12.591	9.764	6.989	5.073	4.056	3.749	2.178
1.941	12.778	11.597	8.916	6.357		3.817	3.578	2.522
2.324	11.887	10.682	8.094	5.746	4.282	3.593	3.417	2.909
2.744	11.210	9.979	7.416	5.206	3.908	3.385	3.270	3.332
3.283	10.685	9.388	6.802	4.684	3.485	3.113	3.084	3.877
3.754	10.456	9.079	6.420	4.323	3.196	2.884	2.905	4.352
4.235	10.381	8.904	6.141	4.035	2.958	2.687	2.728	4.838
4.817	10.452	8.834	5.908	3.773	2.722	2.498	2.550	5.427
5.303	10.514	8.866	5.783	3.604	2.557	2.370	2.434	5.917
5.787	10.843	8.963	5.703	3.467	2.420	2.259		-
6.267	11.113	9.1-09	5.660	3.357	2.308		2.339	6.406
6.4-36	11.465	9.329				2.160	2.253	6.890
7.304		9.535	5.644	3-254	2.199	2.055	2.157	7-465
	11.775		5 655	3 • 1 8 7	2.124	1.980	2.082	7 • 937
7.765	12.084	9.755	5.682	3.131	2.057	1.915	2.013	8-484
8.311	12.475	10.029	5.732	3.07-7	1.986	1.849	1.942	8 • 955
8.76-0 0.20-5	12.897	10.266	5.786	3.040	1.933	1.80:3	1.893	9.408
9.205	13.135	10.513	5.849	3.009	1.884	1.762	1.852	9.857
9.646	13.448	10.767	5.921	2.983	1.840	1,726	1.819	10.303
10 -174	13.791	11.078	6.015	2.956	1.792	1.688	1.788	10-836
10.516	14.942	11.338	6.101	2.937	1.755	1.659	1.766	11-282
11.050	14.256	11.592	6.193	2 • 922	1.721	1.631	1.748	1.1 • 7-31
11.602	14.461	11.882	6.310	2.907	1.682	1.600	1.727	12.278
12.064	14.588	12.107	6.413	2.898	1.651	1.575	1.711	12.745
12.538	14.676	12.309	6.523	2.892	1.621	1.551	1.695	13.223
13.028	14.729	12.484	6.639	2.888	1.590	1.527	1.680	13.718
13.64.0	14.753	12.653	6.787	2 • 887	1.554	1.498	1.661	14.336
14.176	14.747	12.757	6.917	2.890	1.524	1.475	1.646	14.877
14.739	14.727	12.824	7.053	2 • 895	1.493	1 • 45 1	1.632	15.446
15.334	14.699	12.854	7.195	2.903	1.463	1.427	1.620	16.047
16.097	14.661	12.843	7.372	2 • 918	1.426	1.399	1.609	16.817
16.779	14.627	12.802	7.522	2.935	1.396	1.374	1.602	17.506
17.506	14.595	12.741	7.670	2.956	1.367	1.349	1.597	18-240
18.445	14.566	12.648	7.839	2 • 988	1333	1.317	1.594	19.189
19.293	14.552	12.562	7.965	3.021	1.307	1 • 28 9	1.592	20.044
20.204	14.545	12.475	8.073	3.058	1.283	1.259	1.589	20.954
21.181	14.541	1.2.397	8.158	3.105	1.253	1.228	1.583	21.951
22.448	14.536	12.324	8.226	3.166	1.244	1.190	1.572	23.231
23.570	14.532	12.282	8.254	3.221	1.232	1.159	1.559	24.363
24.732	14.525	12.255	8.259	3.280	1.225	1.129	1.543	25.537
26.184	14.513	12.236	8.241	3.352	1.221	1.096	1.521	27.003
27.442	14.499	12.227	8.212	3.414	1.221	1.071	1.500	28.274

MA	CH NO =	10.00	CONE ANGL	.E = 8.0	0 ANGL	E OF ATT	ACK = 1	10.00
		D /	P FREE-ST	REAM AT	DI ANE	ANCI FO		
L/RN	0•	30.	60.	90 •	PLANE 120•	ANGLES	4.00	C (DV:
C / (()	<b>U</b> •	30 •	00 •	70 •	120•	150.	180.	SZRN
28.748	14.485	1-2224	8.174	3.477	1225	1.048	1.479	29.592
30.103	14.471	1-2.224	8.129	3.539	1.231	1.028	1.457	30.961
31.797	14.455	12.229	8.070	3.609	1.241	1.027	1.431	32.672
33.269	14.444	1-2-235	8.018	3.663	1.252	•992	1.408	34.158
34.797	14.438	12.242	7.967	3.712	1.264	•978	1.386	35.701
36.709	14.435	12.251	7.906	3.762	1.280	• 964	1.361	37.632
38.370	14.449	1.2.257	7.857	3.799	1.295	• 954	1.340	39.309
40.094	14.447	12.264	7.808	3.830	1.309	• 945	1.320	41.050
41.884	14.458	12.271	7.761	3.856	1.324	•938	1.302	42.858
44.123	14.474	12.279	7.705	3.882	1.341	• 929	1.281	45.118
46.066	14.489	12.287	7.661	3.899	1.354	•923	1.265	47.080
48.083	14.504	12.296	7.618	3.912	1.367	918	1.250	49.117
50.604	14.523	12.309	7.569	3.923	1.380	•911	1.234	51.663
52.792	14.539	12.320	7.530	3.928	1.390	•907	1.221	53.873
55.064	14.553	12.331	7.492	3.930	1.399	902	1.208	
57.423	14.566	12.344	7.456	3.930	1.407	-898	1.197	
60.374	14.579	12.359	7.416	3.926	1.415	. 894	1.183	
62.938	14.589	12.372	7.385	3.921	1.421	•891	1.173	64.118
65.601	14.597	12.385	7.357	3.913	1.427	.888	1.163	66.808
68.359	14.604	12.397	7.331	3.904	1.432	.885	1.154	69.602
71.834	14.610	12.410	7.303	3.892	1.438	.882	1.144	73.10.2
74.847	14.613	12.420	7.283	3.880	1.442	.881	1.136	76.144
77.980	14.615	12.429	7.267	3.868	1.447	.879	1.129	79.308
81.904	14.616	12.437	7.250	3.852	1.452	.878	1.121	83.271
85.319	14.615	12.443	7.240	3.839	1.455	.878	1.115	86.719
88.869	14.615	12.447	7.233	3.825	1.459	.878	1.110	90.305
92.562	14.613	12.449	7.228	3.812	1.461	.878	1.105	94.034
97.190	14.610	12.451	7.227	3.795	1.465	.879	1.100	98.707
101.216	14.506	12.450	7.229	3.781	1.467	.879		102.773
105.404	14.602	12.449	7.233	3.768	1.469	.880		107.002
110.652	14.597	12.447	7.241	3.752	1.472	.881		112.301
115.218	14.593	12.444	7.249	3.739	1.473	.882		116.912
119.966	14.588	12-440	7.260	3.726	1.475	•882		121.707
124.905	14.582	12.435	7.272	3.713	1 476	.883		126.694
131.091	14.576	12.431	7.289	3.699	1 • 47-8	.883		132.941
136.473	14.571	12.426	7.304	3.687	1.479	.884		138.376
142.069	14.556	12.421	7.321	3.675	1.480	.884		144.027
149.078	14.560	12.415	7.341	3.661	1.481	.884		151.104
155.173	14.555	1.2.41.0	7.359	3.650	1.481	.884		157.260
161.509	14.550	12-405	7-378	3.639	1.482	.884		163.658
168.096	14.546	12.400	7.396	3.628	1.482	.884		170.310
176.342	14.541	12-394	7.419	3.616	1.482	.884		178-637
183.512	14.537	12.389	7.438	3.606	1.482	.884		185.877
190.952	14.533	12.385	7:456	3.596	1.481	<b>-884</b>		193-401
200.288	14.529	12.379	7.478	3.584	1.481	.883		202.819

MACH NO = 15:00 CONE ANGLE = 8:00 ANGLE OF ATTACK = 10:00

		Р/	P FREE-S	TREAM	AT PLANE	ANGLES		
L/RN	0.	30.	60.	90•	120.	150 .	180.	S/RN
768	FF 700	C-4 C 0 7		70 605	00 707	47 474	45 044	4 200
.728	55.729	51.603	41.628	30.695	22.303	17-474	15.941	1.296
.856	36.847	33.864	26.749	19.201	13.610	10.476	9.500	1.426
1.051	34.438	31-528	24.687	17.593	12.432	9.585	8.708	1.624
1.351	31.746	28.95.2	22.502	16.036	11.474	8.992	8.230	1.926
1.713	28.794	26.161	20.152	14.350	10.417	8.373	7.769	2.292
2.136	26.069	23.566	17.920	12.672	9-320	7.710	7.282	2-719
2.611	23.992	21.345	15.868	11.140	8.331	7.144	6.867	3.198
3.125	22 <sub>•</sub> 568	19.830	14.386	9.913	7-∙379	6.550	6.454	3.718
3.663	21.765	18.842	13.262	8.913	-	5.939	5 • 975	4.261
4.213	21.462	18.281	12.470	8.137		5.419	5.505	4.816
4.763	21.549	18.054	11.919	7.557	5.444	5.011	5.121	5.372
5.308	21.927	18.082	11.556	7.110	5.023	4.681	4.826	5.922
5.755	22.394	18.253	11.356	6.812	4 • 7-37	4.442	4.620	6.374
6.281	23.053	18.587	11.213	6.530	4.461	4.188	4.394	6.905
6.794	23.764	19.009	11.148	6.311	4.240	3.969	4.182	7.423
7.293	24.521	19.479	11.141	6.137	4.055	3.783	3.988	7.927
7.777	25.344	19.981	11.176	5.996	3 - 895	3.628	3.818	8.415
8.246	26.233	20.519	11.245	5.879	3 - 75 3	3.497	3.674	8 • 889
8.702	27.159	21.104	11.341	5.782	3.628	3.387	3.557	9.350
9.147	28.079	21.738	11.459	5.699		3.292	3.462	9.798
9.581	28.953	22.414	11.596	5.528	3.421	3.208	3.384	10.237
10.008	29.749	23.119	11.747	5.567	3-335	3.132	3.318	10.669
10.431	30 - 446	23.834	11.913	5.516	3.257	3.063	3.261	11.095
10.781	30.941	24.426	12.061	5.479	3.196	3.010	3.218	11.449
11.203	31.428	25.115	12.252	5.442	3-128	2.948	3.169	11.875
11.627	31.794	25.765	12.457	5.412	3.062	2.890	3.121	12.303
12.058	32.042	26.360	12.680	5.386	2.998	2.834	3.074	12.738
12.498	32.181	26.887	12.923	5.365	2 935	2.780	3.028	13.183
12.951	32.225	27.335	13.188	5.348	2.871	2.728	2.984	13.641
13.422	32.194	27.690	13.477	5.335	2.806	2.677	2.941	14.116
13.914	32.107	27.942	13.795	5.326		2.627	2.902	14.612
14.431	31.979	28.081	14.142	5.320		2.578	2.867	15.135
14.980	31.820	28.109	14.519	5.317		2.530	2.837	15.689
15.561	31.649	28.032	14.921	5.319		2.481	2.814	16.276
16.069	31.519		15.269		2 475			
16.713	31.402	27.664	15.691	5.335	2-40-3	2.390	2.790	17.439
17.402	31.342	27.360	16.108	5.355	2:•330	2.336	2.783	18.135
18.145	31.334	27.017	16.501	5.384	2.259	2.277	2.779	18.885
18.950	31.357	26.679	16.851	5.426	2.190	2.213	2.773	19.698
		-			-		2.761	20.585
19.828	31.428	26.388	17.135	5 • 485 5 • 564	2 • 1 2 7 2 • 0 7 2	2.142	2.741	_
20.789	31.428	26.169	17.328	5.564	2 • 07-2	2.065	2.741	21 • 555 22 • 604
21.828	31.452 31.459	25.964	17.418	5.667	2.026 4 000	1.985		
22.950			17.411	5•795 E 057	1.990	1.903	2.671	23 • 7:3-7
24.161	31.452	25.948	17.325	5.953	1.965	1.823	2.624	24.961
25.464	31.424	25.964	17.180	6.139	1 • 95 1	1.746	2.570	26.277

P / P FREE-SIRFAM AT PLANE   ANGLES   180.   S/PN	MAC	CH NO =	15.NN (	ONE ANGLE	E = 8.00	) ANGLI	E OF ATT	ACK = 10	• 0°C
L/RN         0.         30.         60.         90.         120.         150.         180.         S/PN           26.596         31.381         25.995         17.030         6.309         1.947         1.688         2.524         27.419           28.006         31.308         26.045         16.832         6.520         1.951         1.625         2.465         28.843           29.477         31.236         26.105         16.637         6.727         1.961         1.570         2.405         30.328           31.011         31.181         26.2612         16.453         6.915         1.976         1.522         2.343         31.878           32.613         31.140         26.238         16.132         7.209         2.013         1.443         2.217         35.184           36.030         31.150         26.258         15.990         7.313         2.034         1.411         2.155         36.946           37.850         31.176         26.278         15.603         7.486         2.107         1.337         1.989         42.697           41.725         31.265         26.287         15.603         7.486         2.107         1.337         1.989         42.69	(IA)	)(t (10 =							
L/RN         0.         30.         60.         90.         120.         25.24         27.419           26.596         31.381         25.995         17.030         6.309         1.947         1.688         2.465         28.843           29.477         31.236         26.105         16.637         6.727         1.961         1.570         2.405         30.328           31.011         31.181         26.162         16.637         6.727         1.961         1.570         2.405         30.328           31.011         31.181         26.162         16.637         6.727         1.976         1.522         2.343         31.878           32.613         31.140         26.238         16.132         7.209         2.013         1.443         2.217         35.184           36.030         31.176         26.270         15.856         7.392         2.057         1.383         2.996         38.784           37.855         31.316         26.278         15.729         7.448         2.081         1.358         2.041         40.770           41.755         31.316         26.287         15.608         7.486         2.107         1.337         1.989         42.697			P / F	FREE-ST				4.00	C-ADM
28.096 31.381 26.045 16.832 6.520 1.951 1.625 2.465 30.328 29.477 31.236 26.105 16.637 6.727 1.961 1.570 2.405 30.328 31.011 31.181 26.162 16.453 6.915 1.976 1.522 2.343 31.878 31.011 31.181 26.207 16.286 7.076 1.994 1.480 2.280 33.496 34.285 31.149 26.238 16.132 7.209 2.013 1.443 2.217 35.184 36.030 31.150 26.258 15.990 7.313 2.034 1.411 2.155 36.946 37.850 31.176 26.270 15.856 7.392 2.057 1.383 2.096 38.784 40.700 41.725 31.265 26.278 15.729 7.448 2.107 1.337 1.989 42.697 41.725 31.265 26.287 15.608 7.486 2.107 1.337 1.989 42.697 41.725 31.265 26.287 15.608 7.486 2.107 1.337 1.989 42.697 41.725 31.400 26.321 15.303 7.522 2.181 1.289 1.862 48.819 41.777 41.787 31.400 26.321 15.303 7.522 2.181 1.289 1.862 48.819 50.100 31.437 26.344 15.209 7.517 2.206 1.274 1.823 51.154 50.100 31.437 26.344 15.209 7.517 2.206 1.274 1.823 51.154 50.383 31.502 26.404 15.039 7.443 2.277 1.236 1.719 58.775 57.647 31.512 26.404 14.963 7.443 2.277 1.236 1.719 58.775 57.647 31.512 26.404 14.963 7.404 2.290 1.224 1.688 61.538 63.239 31.540 26.512 14.828 7.361 2.304 1.191 1.602 70.581 69.338 31.550 26.502 14.681 7.225 2.353 1.167 1.557 76.720 70.581 70.503 31.568 26.602 14.681 7.225 2.363 1.175 1.557 76.720 70.581 70.503 31.568 26.602 14.681 7.225 2.363 1.159 1.513 84.004 87.894 31.568 26.602 14.681 7.225 2.363 1.159 1.513 84.004 87.894 31.568 26.602 14.681 7.225 2.363 1.159 1.513 84.004 87.894 87.894 31.568 26.602 14.681 7.225 2.363 1.159 1.513 84.004 87.894 87.894 31.568 26.602 14.681 7.225 2.363 1.159 1.513 84.004 87.894 87.894 31.568 26.602 14.661 7.094 2.373 1.167 1.557 76.720 90.507 31.560 26.654 14.665 7.094 2.380 1.159 1.513 84.004 87.894 90.507 31.560 26.654 14.665 7.094 2.391 1.147 1.475 91.959 90.507 31.550 26.657 14.665 6.919 2.398 1.137 1.442 100.644 99.109 31.533 26.607 14.684 6.961 2.395 1.147 1.475 91.959 90.507 31.553 26.607 14.656 6.919 2.398 1.137 1.442 100.644 110.127 103.700 11.474 11.601 1.129 1.414 110.127 103.700 11.474 11.601 1.129 1.414 110.127 103.700 11.129 1.414 110.127 103.700 11.474 11.601 11.700 11.700 11	L/RN	-0 •	30•	60•	90.	120•	150•	120.0	23.14.14
28.596				47 070	6.700	1 - 947	1.688	2.524	27-419
28.006 31.308 26.045 16.637 6.727 1.961 1.570 2.405 30.328 31.011 31.181 26.162 16.453 6.915 1.976 1.522 2.343 31.878 31.011 31.181 26.162 16.453 6.915 1.976 1.522 2.343 31.878 31.011 31.181 26.162 16.453 6.915 1.976 1.994 1.460 2.280 33.496 2.285 31.140 26.238 16.132 7.209 2.013 1.441 2.155 36.946 37.850 31.170 26.258 15.990 7.313 2.034 1.411 2.155 36.946 37.850 31.176 26.270 15.856 7.392 2.057 1.383 2.096 38.784 31.216 26.278 15.608 7.486 2.107 1.337 1.989 42.697 41.725 31.265 26.287 15.608 7.486 2.107 1.337 1.989 42.697 43.785 31.316 26.296 15.494 7.509 2.133 1.318 1.941 44.777 45.567 31.356 26.305 15.405 7.520 2.155 1.304 1.903 46.577 47.787 31.400 26.321 15.303 7.523 2.181 1.289 1.862 48.819 2.107 1.823 1.5468 26.372 15.121 7.501 2.230 1.261 1.787 53.589 55.025 31.493 26.404 15.039 7.476 2.251 1.248 1.752 56.127 57.647 31.552 26.440 15.039 7.476 2.251 1.224 1.688 61.538 1.550 26.546 14.893 7.404 2.290 1.224 1.688 61.538 66.223 31.550 26.647 14.828 7.361 2.308 1.212 1.658 64.423 1.550 26.546 14.771 7.316 2.324 1.202 1.669 67.435 76.9338 31.550 26.602 14.681 7.225 2.353 1.167 1.551 84.028 1.557 73.868 2.6630 31.568 26.602 14.685 7.186 2.363 1.155 1.557 73.868 2.6630 31.568 26.602 14.665 7.186 2.363 1.155 1.551 84.008 82.6630 31.568 26.662 14.665 7.186 2.363 1.155 1.551 84.008 82.6630 31.568 26.663 14.665 7.186 2.363 1.155 1.551 84.008 82.6630 31.568 26.663 14.665 7.186 2.363 1.155 1.551 84.008 82.6630 31.568 26.663 14.665 7.186 2.363 1.155 1.551 84.008 82.6630 31.568 26.663 14.665 7.186 2.393 1.157 1.551 84.008 82.6630 31.568 26.663 14.665 7.004 2.395 1.154 1.458 96.206 94.714 31.552 26.665 14.661 7.004 2.395 1.154 1.458 96.206 94.714 31.552 26.665 14.665 6.919 2.398 1.153 1.447 1.458 96.206 94.714 31.552 26.665 14.665 6.919 2.398 1.132 1.447 1.458 96.206 94.714 31.552 26.663 14.665 7.004 2.395 1.114 1.442 1.00.604 99.109 31.553 26.663 14.665 7.004 2.395 1.114 1.442 1.00.604 99.109 31.553 26.663 14.665 7.004 2.395 1.114 1.442 1.00.604 99.109 31.553 26.663 14.665 7.004 2.395 1.114 1.442 1.00.504 1.449 1.00.70									
29.477       31.236       26.109       16.453       3.71       1.976       1.522       2.343       31.878         31.011       31.181       26.207       16.286       7.076       1.994       1.480       2.280       33.496         34.285       31.140       26.238       16.132       7.209       2.013       1.443       2.217       35.184         36.030       31.150       26.258       15.990       7.313       2.034       1.411       2.155       36.946         37.850       31.176       26.271       15.856       7.392       2.057       1.383       2.096       38.784         41.725       31.265       26.287       15.608       7.486       2.107       1.337       1.989       42.697         41.725       31.316       26.296       15.494       7.509       2.133       1.318       1.941       44.777         45.567       31.356       26.305       15.405       7.520       2.155       1.304       1.903       46.577         47.87       31.400       26.344       15.209       7.517       2.206       1.274       1.823       51.154         50.100       31.4528       26.344       15.039       7.476									
31.011       31.181       26.162       16.486       7.076       1.994       1.480       2.280       33.496         32.613       31.149       26.207       16.286       7.076       1.994       1.483       2.217       35.184         36.030       31.450       26.278       15.990       7.313       2.034       1.411       2.155       36.946         37.850       31.216       26.278       15.729       7.486       2.107       1.337       1.989       42.697         41.725       31.265       26.287       15.608       7.486       2.107       1.337       1.989       42.697         43.785       31.316       26.296       15.494       7.509       2.133       1.318       1.941       44.777         45.567       31.356       26.305       15.494       7.509       2.133       1.318       1.941       44.777         47.787       31.402       26.321       15.303       7.523       2.181       1.289       1.862       48.819         50.100       31.437       26.321       15.303       7.512       2.206       1.274       1.823       51.154         52.511       31.468       26.476       15.039       7.476									
32.613       31.149       26.238       16.132       7.209       2.013       1.443       2.217       35.184         36.030       31.150       26.258       15.990       7.313       2.034       1.411       2.155       36.946         37.850       31.176       26.270       15.856       7.392       2.057       1.383       2.094       40.700         39.748       31.216       26.287       15.608       7.448       2.081       1.358       2.041       40.700         41.725       31.265       26.287       15.608       7.448       2.081       1.358       2.041       40.700         43.785       31.316       26.296       15.494       7.500       2.133       1.318       1.941       44.777         45.567       31.356       26.305       15.405       7.520       2.155       1.304       1.903       46.577         47.787       31.400       26.321       15.303       7.523       2.181       1.283       51.154         50.100       31.437       26.372       15.121       7.501       2.206       1.274       1.823       51.154         50.100       31.458       26.404       15.039       7.476       2.251	31.011								
34.285       31.140       26.258       15.990       7.313       2.034       1.411       2.155       36.946         37.850       31.176       26.278       15.856       7.392       2.057       1.383       2.096       38.784         39.748       31.216       26.278       15.608       7.486       2.107       1.337       1.989       42.697         41.725       31.265       26.287       15.608       7.486       2.107       1.337       1.989       42.697         43.785       31.316       26.296       15.494       7.509       2.133       1.318       1.941       44.777         45.567       31.356       26.305       15.405       7.520       2.135       1.304       1.903       46.577         47.787       31.400       26.321       15.303       7.523       2.181       1.289       1.862       48.819         50.100       31.437       26.344       15.209       7.517       2.206       1.274       1.823       51.154         55.025       31.493       26.404       15.039       7.476       2.251       1.248       1.752       56.127         57.647       31.512       26.404       14.963       7.404	32.613								
36.030       31.150       26.278       15.990       7.392       2.057       1.383       2.096       38.784         37.850       31.216       26.278       15.729       7.448       2.081       1.358       2.041       40.700         41.725       31.265       26.287       15.608       7.486       2.107       1.337       1.989       42.697         43.785       31.316       26.296       15.494       7.509       2.133       1.914       44.777         45.567       31.356       26.305       15.495       7.520       2.155       1.304       1.903       46.577         47.787       31.400       26.321       15.303       7.523       2.181       1.289       1.862       48.819         50.100       31.437       26.344       15.209       7.517       2.206       1.274       1.823       51.154         55.012       31.493       26.404       15.039       7.476       2.230       1.261       1.787       53.589         57.647       31.512       26.404       14.963       7.443       2.272       1.236       1.719       56.127         57.647       31.550       26.512       14.828       7.361       2.308	34.285								
37-850 31-176 26-270 15-606 7-632 2-081 1-358 2-041 40-700 41-725 31-265 26-287 15-608 7-486 2-107 1-337 1-989 42-697 43-785 31-316 26-296 15-494 7-509 2-133 1-318 1-941 44-777 45-567 31-356 26-305 15-405 7-520 2-155 1-304 1-903 46-577 47-787 31-400 26-321 15-303 7-523 2-181 1-289 1-862 48-819 50-100 31-437 26-344 15-209 7-517 2-206 1-274 1-823 51-154 55-025 31-493 26-404 15-039 7-476 2-251 1-248 1-752 56-127 57-647 31-512 26-440 14-963 7-443 2-272 1-236 1-719 58-775 57-647 31-512 26-440 14-963 7-443 2-272 1-236 1-719 58-775 66-222 31-550 26-512 14-828 7-361 2-308 1-212 1-658 64-423 63-239 31-540 26-512 14-828 7-361 2-308 1-212 1-658 64-423 63-239 31-550 26-546 14-771 7-316 2-324 1-202 1-629 67-435 66-222 31-550 26-546 14-771 7-316 2-324 1-202 1-629 67-435 75-417 31-566 26-620 14-681 7-225 2-353 1-167 1-557 76-720 75-417 31-568 26-620 14-655 7-186 2-363 1-175 1-557 76-720 75-417 31-568 26-620 14-655 7-186 2-363 1-175 1-557 76-720 75-75 75-7	36.030								
39.748       31.216       26.278       15.729       7.448       2.107       1.337       1.989       42.697         41.725       31.265       26.287       15.608       7.486       2.107       1.337       1.989       42.697         43.785       31.316       26.296       15.405       7.509       2.133       1.903       46.577         45.567       31.356       26.321       15.303       7.523       2.181       1.289       1.862       48.819         50.100       31.437       26.344       15.209       7.517       2.206       1.274       1.823       51.154         52.511       31.468       26.372       15.121       7.501       2.230       1.261       1.787       53.589         52.511       31.493       26.404       15.039       7.476       2.251       1.248       1.7787       56.127         55.025       31.493       26.440       14.963       7.404       2.272       1.236       1.719       58.775         60.383       31.552       26.476       14.893       7.361       2.308       1.212       1.658       64.423         63.239       31.540       26.512       14.827       7.271       2.340 <td>37.850</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	37.850								
41.725 31.256 26.207 15.404 7.509 2.133 1.318 1.941 44.777 45.567 31.356 26.305 15.405 7.520 2.155 1.304 1.903 46.577 45.567 31.356 26.321 15.303 7.523 2.181 1.289 1.862 48.819 1.760.100 31.437 26.344 15.209 7.517 2.206 1.274 1.823 51.154 52.51 31.468 26.372 15.124 7.501 2.230 1.261 1.787 53.589 52.511 31.468 26.372 15.124 7.501 2.230 1.261 1.775 53.589 55.025 31.493 26.404 15.039 7.476 2.251 1.248 1.752 56.127 57.647 31.512 26.440 14.963 7.443 2.272 1.236 1.719 58.775 57.647 31.512 26.440 14.963 7.443 2.272 1.236 1.719 58.775 66.223 31.550 26.512 14.828 7.361 2.308 1.212 1.658 64.423 66.22 31.550 26.546 14.771 7.316 2.324 1.202 1.668 61.538 64.423 66.22 31.550 26.546 14.771 7.316 2.324 1.202 1.629 67.435 67.435 75.417 31.563 26.602 14.681 7.225 2.353 1.182 1.577 73.868 75.417 31.568 26.602 14.681 7.225 2.353 1.162 1.577 73.868 75.417 31.568 26.602 14.6655 7.186 2.363 1.175 1.557 76.720 78.944 31.568 26.636 14.632 7.140 2.373 1.167 1.534 80.282 78.944 31.568 26.636 14.632 7.140 2.373 1.167 1.534 80.282 70.947 31.568 26.653 14.625 7.048 2.386 1.153 1.494 87.894 87.894 87.894 31.556 26.652 14.634 6.961 2.395 1.147 1.475 91.959 91.950 31.550 26.652 14.634 6.961 2.395 1.147 1.475 91.959 91.910 31.553 26.657 14.656 6.961 2.395 1.147 1.458 96.206 99.109 31.553 26.657 14.656 6.961 2.395 1.147 1.458 96.206 99.109 31.553 26.657 14.656 6.961 2.395 1.147 1.458 96.206 99.109 31.553 26.657 14.654 6.961 2.395 1.147 1.458 96.206 99.109 31.553 26.659 14.6684 6.879 2.400 1.132 1.427 105.282 103.701 31.553 26.669 14.6684 6.879 2.400 1.132 1.427 105.282 103.701 31.553 26.669 14.6684 6.879 2.400 1.132 1.427 105.282 103.701 31.553 26.669 14.6684 6.879 2.400 1.129 1.414 110.127	39.748								
43.785 31.316 26.296 15.494 7.507 2.155 1.304 1.903 46.577 45.567 31.356 26.305 15.405 7.520 2.181 1.289 1.862 48.819 1.0010 31.437 26.344 15.209 7.517 2.206 1.274 1.823 51.154 2.511 31.468 26.372 15.121 7.501 2.230 1.261 1.787 53.589 1.50.25 31.493 26.404 15.039 7.476 2.251 1.248 1.752 56.127 1.750 2.230 1.261 1.787 53.589 1.750.25 31.493 26.440 14.963 7.443 2.272 1.236 1.719 58.775 1.647 31.528 26.440 14.963 7.443 2.272 1.236 1.719 58.775 1.647 31.528 26.476 14.893 7.404 2.290 1.224 1.688 61.538 1.528 26.476 14.828 7.361 2.308 1.212 1.658 64.423 1.658 66.222 31.550 26.512 14.828 7.361 2.308 1.212 1.658 64.423 1.659 67.435 1.202 1.629 67.435 1.500 26.512 14.628 7.316 2.324 1.202 1.629 67.435 1.500 2.353 31.550 26.546 14.771 7.271 2.340 1.191 1.602 70.581 7.259 31.563 26.602 14.681 7.225 2.353 1.182 1.577 73.868 2.593 31.568 26.620 14.655 7.186 2.353 1.175 1.557 76.720 75.417 31.568 26.636 14.632 7.140 2.373 1.167 1.534 80.282 75.417 31.568 26.651 14.632 7.094 2.380 1.159 1.513 84.004 87.894 31.568 26.653 14.625 7.094 2.380 1.159 1.513 84.004 87.894 90.507 31.568 26.652 14.634 6.961 2.395 1.147 1.475 91.959 90.507 31.568 26.652 14.634 6.961 2.395 1.147 1.475 91.959 90.507 31.563 26.652 14.634 6.961 2.395 1.147 1.475 91.959 90.507 31.553 26.652 14.634 6.961 2.395 1.137 1.442 100.644	41.725						1.318		
45.567       31.356       26.305       15.405       7.523       2.181       1.289       1.862       48.819         47.787       31.400       26.324       15.303       7.523       2.181       1.289       1.862       48.819         50.100       31.437       26.344       15.209       7.517       2.230       1.261       1.787       53.589         52.511       31.468       26.372       15.124       7.501       2.230       1.261       1.787       53.589         55.025       31.493       26.404       15.039       7.476       2.251       1.248       1.752       56.127         57.647       31.512       26.404       14.963       7.443       2.272       1.236       1.719       58.775         60.383       31.528       26.476       14.828       7.361       2.308       1.212       1.668       61.538         63.223       31.550       26.546       14.771       7.316       2.324       1.202       1.629       67.435         69.338       31.557       26.577       14.681       7.225       2.353       1.182       1.577       73.868         72.541       31.563       26.620       14.655       7.186	43.785								
47.787       31.400       26.321       15.303       7.517       2.206       1.274       1.823       51.154         50.100       31.437       26.344       15.209       7.517       2.206       1.274       1.787       53.589         52.511       31.468       26.372       15.124       7.501       2.230       1.261       1.777       53.589         55.025       31.493       26.404       15.039       7.476       2.251       1.248       1.752       56.127         57.647       31.512       26.440       14.963       7.404       2.290       1.224       1.688       61.538         60.383       31.528       26.476       14.883       7.361       2.308       1.212       1.658       64.423         63.223       31.550       26.512       14.828       7.361       2.324       1.202       1.629       67.435         69.338       31.557       26.577       14.722       7.271       2.340       1.191       1.602       70.581         75.417       31.563       26.602       14.681       7.225       2.353       1.182       1.577       73.868         78.944       31.568       26.636       14.632       7.140	45.567								
50.100       31.437       26.344       19.209       7.501       2.230       1.261       1.787       53.589         52.511       31.468       26.372       15.124       7.501       2.251       1.248       1.752       56.127         55.025       31.493       26.440       14.963       7.476       2.272       1.236       1.719       58.775         57.647       31.512       26.440       14.963       7.443       2.272       1.236       1.719       58.775         60.383       31.528       26.476       14.828       7.361       2.308       1.212       1.658       64.423         63.239       31.540       26.512       14.828       7.361       2.308       1.212       1.658       64.423         66.222       31.550       26.546       14.771       7.316       2.324       1.202       1.629       67.435         72.593       31.563       26.602       14.651       7.271       2.340       1.191       1.602       70.581         75.417       31.568       26.620       14.655       7.186       2.353       1.157       1.577       73.868         78.944       31.568       26.653       14.632       7.048	47.787								
52.511       31.468       26.372       15.121       7.901       2.251       1.248       1.752       56.127         55.025       31.493       26.404       14.963       7.443       2.272       1.236       1.719       58.775         57.647       31.512       26.440       14.963       7.443       2.272       1.236       1.719       58.775         60.383       31.528       26.476       14.893       7.404       2.290       1.224       1.688       61.538         63.239       31.540       26.512       14.828       7.361       2.308       1.212       1.658       64.423         66.222       31.550       26.546       14.771       7.316       2.324       1.202       1.629       67.435         69.338       31.557       26.577       14.722       7.271       2.340       1.191       1.602       70.581         72.593       31.563       26.602       14.681       7.225       2.353       1.182       1.577       73.868         75.417       31.568       26.636       14.632       7.140       2.373       1.167       1.534       80.282         78.944       31.566       26.653       14.615       7.048	50.100								
55.025       31.493       26.404       15.035       7.443       2.272       1.236       1.719       58.775         57.647       31.512       26.440       14.893       7.404       2.290       1.224       1.688       61.538         60.383       31.528       26.476       14.828       7.361       2.308       1.212       1.658       64.423         63.239       31.540       26.512       14.828       7.361       2.308       1.212       1.629       67.435         66.222       31.550       26.546       14.771       7.316       2.324       1.202       1.629       67.435         69.338       31.557       26.577       14.722       7.271       2.340       1.191       1.602       70.581         72.593       31.563       26.602       14.681       7.225       2.353       1.182       1.577       73.868         75.417       31.568       26.620       14.632       7.140       2.373       1.167       1.534       80.282         78.944       31.568       26.653       14.632       7.048       2.380       1.159       1.513       84.004         86.482       31.568       26.653       14.632       7.004	52.511	31.468							
57.647       31.512       26.440       14.893       7.404       2.290       1.224       1.688       61.538         60.383       31.528       26.512       14.828       7.361       2.308       1.212       1.658       64.423         63.239       31.550       26.546       14.771       7.316       2.324       1.202       1.629       67.435         66.222       31.550       26.577       14.722       7.271       2.340       1.191       1.602       70.581         72.593       31.563       26.602       14.681       7.225       2.353       1.182       1.577       73.868         75.417       31.568       26.620       14.655       7.186       2.363       1.175       1.557       76.720         78.944       31.568       26.636       14.632       7.140       2.373       1.167       1.534       80.282         78.944       31.568       26.653       14.619       7.094       2.380       1.159       1.513       84.004         86.482       31.568       26.653       14.615       7.004       2.391       1.147       1.475       91.959         94.714       31.5592       26.652       14.634       6.961 <td>55.025</td> <td>31 - 493</td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td>	55.025	31 - 493		-					
60.383 31.528 26.476 14.895 7.361 2.308 1.212 1.658 64.423 63.239 31.540 26.512 14.828 7.361 2.324 1.202 1.629 67.435 66.222 31.550 26.546 14.771 7.316 2.324 1.202 1.629 67.435 72.593 31.557 26.577 14.722 7.271 2.340 1.191 1.602 7.0.581 72.593 31.563 26.602 14.681 7.225 2.353 1.182 1.577 73.868 75.417 31.568 26.620 14.655 7.186 2.363 1.175 1.557 76.720 78.944 31.568 26.636 14.632 7.140 2.373 1.167 1.534 80.282 78.944 31.568 26.636 14.632 7.094 2.380 1.159 1.513 84.004 86.482 31.565 26.653 14.615 7.094 2.386 1.153 1.494 87.894 87.894 99.109 31.560 26.654 14.621 7.004 2.386 1.153 1.494 87.894 99.109 31.553 26.652 14.634 6.961 2.395 1.147 1.475 91.959 91.959 91.09 31.543 26.647 14.656 6.919 2.398 1.137 1.442 100.644 99.109 31.533 26.639 14.684 6.879 2.400 1.132 1.427 105.282 103.701 31.533 26.639 14.684 6.879 2.400 1.132 1.442 100.644					-				-
63.239 31.540 26.512 14.625 7.316 2.324 1.202 1.629 67.435 66.222 31.550 26.546 14.771 7.316 2.324 1.202 1.602 7.0.581 69.338 31.557 26.577 14.722 7.271 2.340 1.191 1.602 7.0.581 72.593 31.563 26.602 14.681 7.225 2.353 1.182 1.577 73.868 75.417 31.568 26.636 14.655 7.186 2.363 1.175 1.557 76.720 78.944 31.568 26.636 14.632 7.140 2.373 1.167 1.534 80.282 78.944 31.568 26.636 14.619 7.094 2.380 1.159 1.513 84.004 87.894 86.482 31.565 26.653 14.615 7.048 2.386 1.153 1.494 87.894 87.894 99.109 31.550 26.654 14.621 7.004 2.391 1.147 1.475 91.959 94.714 31.552 26.652 14.634 6.961 2.395 1.147 1.475 91.959 94.714 31.553 26.657 14.656 6.919 2.398 1.137 1.442 100.644 99.109 31.533 26.639 14.684 6.879 2.400 1.132 1.427 105.282 103.701 31.533 26.639 14.684 6.879 2.400 1.132 1.442 100.644	60.383	31.528							
66.222 31.550 26.546 14.771 7.316 2.324 1.202 1.602 70.581 69.338 31.557 26.577 14.722 7.271 2.340 1.191 1.602 70.581 72.593 31.563 26.602 14.681 7.225 2.353 1.182 1.577 73.868 75.417 31.566 26.620 14.655 7.186 2.363 1.175 1.557 76.720 78.944 31.568 26.636 14.632 7.140 2.373 1.167 1.534 80.282 78.944 31.568 26.636 14.619 7.094 2.380 1.159 1.513 84.004 86.482 31.565 26.653 14.615 7.048 2.386 1.153 1.494 87.894 90.507 31.560 26.654 14.621 7.004 2.386 1.153 1.494 87.894 90.507 31.560 26.654 14.621 7.004 2.391 1.147 1.475 91.959 94.714 31.552 26.652 14.634 6.961 2.395 1.141 1.458 96.206 99.109 31.533 26.639 14.684 6.919 2.398 1.137 1.442 100.644 99.109 31.533 26.639 14.684 6.879 2.400 1.132 1.427 105.282 103.701 31.533 26.639 14.684 6.879 2.400 1.132 1.414 110.127	63.239	31.540	26.512						_
69.338       31.557       26.577       14.722       7.271       2.340       1.191       1.502       1.502       1.503		31.550	26.546						
72.593 31.563 26.602 14.681 7.225 2.353 1.162 1.557 76.720 75.417 31.566 26.620 14.655 7.186 2.363 1.175 1.557 76.720 78.944 31.568 26.636 14.632 7.140 2.373 1.167 1.534 80.282 82.630 31.568 26.647 14.619 7.094 2.380 1.159 1.513 84.004 87.894 86.482 31.565 26.653 14.615 7.048 2.386 1.153 1.494 87.894 90.507 31.550 26.654 14.621 7.004 2.391 1.147 1.475 91.959 94.714 31.552 26.652 14.634 6.961 2.395 1.147 1.458 96.206 99.109 31.543 26.647 14.656 6.919 2.398 1.137 1.442 100.644 99.109 31.533 26.639 14.684 6.879 2.400 1.132 1.427 105.282 103.701 31.533 26.639 14.684 6.879 2.400 1.129 1.414 110.127		31.557	26.577						
75.417 31.566 26.620 14.655 7.186 2.363 1.175 1.534 80.282 78.944 31.568 26.636 14.632 7.140 2.373 1.167 1.534 80.282 82.630 31.568 26.647 14.619 7.094 2.380 1.159 1.513 84.004 86.482 31.565 26.653 14.615 7.048 2.386 1.153 1.494 87.894 90.507 31.550 26.654 14.621 7.004 2.391 1.147 1.475 91.959 94.714 31.552 26.652 14.634 6.961 2.395 1.141 1.458 96.206 99.109 31.543 26.647 14.656 6.919 2.398 1.137 1.442 100.644 99.109 31.533 26.639 14.684 6.879 2.400 1.132 1.427 105.282 103.701 31.533 26.639 14.684 6.879 2.400 1.129 1.414 110.127		31.563							
78.944 31.568 26.636 14.632 7.140 2.373 1.167 1.513 84.004 82.630 31.568 26.647 14.619 7.094 2.380 1.159 1.513 84.004 87.894 86.482 31.565 26.653 14.615 7.048 2.386 1.153 1.494 87.894 90.507 31.550 26.654 14.621 7.004 2.391 1.147 1.475 91.959 94.714 31.552 26.652 14.634 6.961 2.395 1.141 1.458 96.206 99.109 31.543 26.647 14.656 6.919 2.398 1.137 1.442 100.644 99.109 31.533 26.639 14.684 6.879 2.400 1.132 1.427 105.282 103.701 31.533 26.639 14.684 6.879 2.400 1.129 1.414 110.127		31.566	26.620						
82.630 31.568 26.647 14.619 7.094 2.386 1.153 1.494 87.894 86.482 31.565 26.653 14.615 7.048 2.386 1.153 1.494 87.894 90.507 31.560 26.654 14.621 7.004 2.391 1.147 1.475 91.959 94.714 31.552 26.652 14.634 6.961 2.395 1.141 1.458 96.206 99.109 31.543 26.647 14.656 6.919 2.398 1.137 1.442 100.644 99.103 31.533 26.639 14.684 6.879 2.400 1.132 1.427 105.282 103.701 31.533 26.639 14.684 6.879 2.401 1.129 1.414 110.127		31.568	26.636						
86.482 31.565 26.653 14.615 7.048 2.386 1.153 1.475 91.959 90.507 31.560 26.654 14.621 7.004 2.391 1.147 1.475 91.959 94.714 31.552 26.652 14.634 6.961 2.395 1.141 1.458 96.206 99.109 31.543 26.647 14.656 6.919 2.398 1.137 1.442 100.644 100.644 100.127 105.282		31.568	26.647						
90.507 31.560 26.654 14.621 7.004 2.391 1.147 1.475 96.206 94.714 31.552 26.652 14.634 6.961 2.395 1.141 1.458 96.206 99.109 31.543 26.647 14.656 6.919 2.398 1.137 1.442 100.644 103.701 31.533 26.639 14.684 6.879 2.400 1.132 1.427 105.282 103.701 31.533 26.639 14.749 6.841 2.401 1.129 1.414 110.127				14.615					
94.714 31.552 26.652 14.634 6.961 2.395 1.141 1.435 96.265 99.189 31.543 26.647 14.656 6.919 2.398 1.137 1.442 100.644 103.701 31.533 26.639 14.684 6.879 2.400 1.132 1.427 105.282 103.701 31.533 26.639 14.684 6.879 2.401 1.129 1.414 110.127			4.	14.621					
99.109 34.543 26.647 14.656 6.919 2.398 1.137 1.442 105.282 103.701 34.533 26.639 14.684 6.879 2.400 1.132 1.427 105.282		31.552	26.652					1.499	
103.701 31.533 26.639 14.684 6.879 2.400 1.132 1.427 10.127	-			14.656		_		1 4 4 4 6	100-074
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11164444 0760 CT CC40CT TATTER TO THE TOTAL A LOA 44E 400	108-499	31.521			6.841		1.129	1.414	1-1-U - 1-C /
113.512 31.508 26.618 14.759 6.805 2.401 1.126 1.401 1.70									
118.750 31.495 26.605 14.804 6.770 2.481 1.123 1.370 125 066				14.804				1.000	125 066
123.293 34.484 26.594 14.844 6.742 2.400 1.121 1.379 123.000				14.844				1.3/9	4:70-705
128.966 31.470 26.551 14.895 6.711 2.398 1.119 1.300 130.775				14.895					
134.892 31-457 26.567 14.949 6.681 2.395 1.116 1.330				14.949	6.681				
141.081 31-445 26.553 15.004 6.652 2.392 1.114 1.343 143.025				15.004					
147.543 31:433 26.539 15.060 6.624 2.388 1.112 1.544 149.70					6.624				
154.291 31-421 26.525 15.117 6.598 2.384 1.110 1.531 196.409					6.598				
164.375 31.411 26.511 15.474 6.573 2.379, 1.108 1.323 103.402				-	6.573				
168.688 31.401 26.498 15.231 6.549 2.375 1.106 1.315 170.900					6.549				
476 363 34:392 26.485 15:286 6.526 2.371 1.103 1.308 178.000					6.526				
184.373 31.384 26.472 15.341 6.503 2.366 1.101 1.301 1.06.747					6.503		-	1.301	1866-747
102.732 34-377 26.460 15.395 6.482 2.361 1.098 1.294 195.100					6.482			1.294	195.100
201.453 31.370 26.448 15.447 6.462 2.356 1.095 1.297 2.03.994					6.462	2.356	1.095	1.237	<u>८</u> -0:5 • 994

MUCH NO = \$0.00 CONF ANGLE = 8.00 ANGLE OF ATTACK = 13.00 P / P FPEE-STREAM AT PLANE ANGLES EVON 9. 30. 63. 90. 150. S/RN 120. 180. 1729 27.948 93.656 73.042 57.754 38.976 30.488 27.797 1.297 . 880 62.688 57.439 45.004 32.002 22.513 17.253 15.623 1.460 1.096 59.743 54.629 42.658 30.356 21.449 16.538 15.027 1.668 54.775 49.898 1.403 ₹8.687 27.530 19.712 15-488 1.978 14.196 34.495 1.772 49.495 2.751 44.914 24.538 17.863 14.357 13.349 2.275 44.192 29.897 39.616 21.086 15.631 13.324 12.360 2.860 2.759 40.714 36.885 26.585 18.539 13.853 12.022 11.636 3.748 3.276 38.500 33.642 2-4.141 16.506 12.247 10.939 10.860 3.87€ 3.810 37.304 32.G87 14.852 19.953 9.898 9.997 22.323 4.409 4.359 38.927 31.230 9.914 2.1.031 13.593 9.050 9.209 4.354 4.976 37.281 33.965 12.502 20.017 8.932 8.284 8.500 5.586 5.513 38.070 31.061 19.457 7.744 11.787 8.262 8.029 6.119 5.018 39.114 31.506 19.105 11.230 7--732 7.274 7.616 6.539 5.518 4C.272 32.136 18.907 10.758 7.316 6.865 7.233 7.144 7.003 41.507 32.867 18.822 10.456 6.963 6.516 6.878 7.534 7.548 43.101 33.792 18.825 10:.138 6.178 6..620 6.512 8.184 7.998 5.939 44.623 34.656 18.893 9.916 6.366 6.248 8.639 9.433 46.252 35.592 19.009 9.729 6.143 5...737 6.029 9.,77 8.853 47.918 36.632 19.163 9:.571 5.946 5.564 5.849 9.502 9.328 49.809 37.966 9.414 1-9.383 5.748 5.388 5.679 9.981 9.724 9.300 5.600 51.316 3.º . 17F 19.598 5.255 5.558 10.381 10.113 52.570 48.432 19.835 9.233 5.467 5.134 5.452 18.774 19.496 53.845 41.701 20.092 3.120 5..346 5.023 5.357 11.161 10.877 54.825 42.952 20.368 9.049 5.233 4..918 5..268 11.546 11.321 55.712 8.979 44.353 26.719 4.834 11.994 5.198 5.168 11.793 56.251 45.476 21.347 8.928 5.094 4.710 5.086 12.380 12.001 56.595 46.504 21.403 8.883 4.902 4.621 5.005 12.771 21.792 12.495 56.763 8.844 47.420 4.800 4.535 4.927 13.170 12.891 56.782 48.201 22.220 8.810 4.697 4.451 4.851 13.579 13.381 56.653 48.916 22.775 8-775 4.576 4.357 4.768 14.175 13.821 5E.435 45.338 23.396 8,749 4.470 4.278 4.703 14.519 14.283 5E.134 49.573 23.892 8.726 4.362 4 - 201 4.645 14.985 14.770 55.771 49.618 24.536 4.596 15.477 8.707 4.251 4.125 15.357 55.340 49.445 25.346 8.691 4 - 037 4.553 4.119 16.380 15.906 55.030 49.108 8-683 26.077 4.004 3.961 4.526 16.524 16.475 54.825 48,610 8..681 26.828 3.886 4.509 3.883 17.199 54.738 47.979 17.091 27.581 8.690 3.767 3.799 4.497 17.811 17.731 54.750 47.281 28.312 8.719 3.648 3-707 4.488 18.467 18.554 54.846 46.491 29.093 3.589 8.753 3.512 4.473 19.298 54.960 19.325 45.914 20.652 8-814 3.401 3.476 4.452 20.177 28-154 55.066 45.472 30.056 8.902 3.298 3.353 4.418 20.924 21.052 55.149 45.199 3.C. 276 9.021 3-209 3.224 4.371 21.821 21,993 55.198 45.068 30.315 9:•178 3.134 3.093 4.311 22.771 23.174 55.229 45.047 30.169 9.421 3.065 2.939 4.228 23.963

9.692

3.024

2.809

4.149

25.375

24.275

45.096

29.903

55.214

MACH NO = 20.00	CONE ANGLE =	8.00	ANGLE OF	ATTACK =	10.03
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		P /	P FREE-ST	TREAM AT	PLANE	ANGLES		
LYVN	0.	30.	60.	90•	120.	150.	186.	S/RN
_,	•							
25.478	55.129	45.188	29.530	10.024	3.000	2.683	4.063	26.291
25.788	54.953	49.318	29.095	10.409	2.994	2.565	3.972	27.513
28.390	54.756	45.506	28.606	10.876	3.007	2.445	3.860	29.231
29.827	54.623	45.652	28.231	11.252	3.026	2.356	3.758	30.682
31.326	54.540	45.766	27.903	11.582	3.049	2.278	3.652	32.195
32.889	54.506	45.835	27.613	11.857	3.073	2.209	3.541	3.3.774
34.519	54.514	45.871	27,350	12.074	3.099	2.148	3.428	35.420
36.528	54.571	45.886	27.068	12.255	3,131	2.985	3.299	3.7 • 429
38.290	54.655	45.889	26.841	12.357	3.161	2.037	3.194	39.228
40.143	54.757	45.887	26.626	12.421	3.194	1.996	3.095	41.299
42.071	54.858	45.884	26.424	12.455	3.228	1.960	3.004	43.146
44.076	54.951	45.887	26.237	12.470	3.262	1.928	2.920	45.071
46.517	55.040	45.909	26.036	12.463	3.303	1.895	2.831	47.536
48.731	55.100	45.944	25.879	12.436	3.338	1.869	2.760	49.741
50.974	55.146	45.992	25.735	12.390	3.372	1.844	2.694	52.136
53.341	55.179	46.049	25.602	12.324	3.407	1.821	2.630	54.427
56.228	55.206	46.125	25.458	12.228	3.446	1.795	2.559	57.342
58.816	55.224	46.192	25.344	12.138	3.479	1.773	2.501	59.356
61.516	55.239	46.263	25.238	12.046	3.510	1.753	2.446	62.582
54.332	55.254	46.324	25.142	11.954	3.538	1.733	2.394	65.526
57.270	55.268	46.381	25.058	11.864	3.563	1.714	2.345	68.493
71.859	55.282	46.435	24.980	11.759	3.586	1.693	2.291	7:2.118 7:5.372
74.082	-55.291	46.472	24.931	11.669	3.602	1.675	2.247	7:8.767
77. 445	55.297	46.498	24.898	11.580	3.614 3.623	1.658 1.642	2.167	82.312
89.954	55.299	46.515	24.883	11.492 11.407	3.630	1.626	2.130	86.010
34.617	55.297	46.524	24.885 24.906	11.311	3.636	1.608	2.090	90.530
89.093	55.287 55.275	46.518	24.940	11.231	3.640	1.594	2.056	94.587
93.110 97.303	55.259	46.507	24.988	11.156	3.643	1.581	2.025	98.821
401.679	55.239	46.491	25.048	11.130	3.644	1.569	1.995	103.240
107.024	55.214	46.470	25.131	11.005	3.642	1.556	1.962	
111.823	55.191	46.449	25.213	10.941	3.638	1.546	1.936	
116.829	55.168	46.426	25.302	10.881	3.631	1.537		118.539
122.052	55.144	46.402	25.338	10.824	3.623	1-529		123.813
127.500	55.121	46.378	25.498	10.770	3.613	1.521		129.315
134.155	55.095	46.349	25.619	10.711	3.600	1.513		136.735
140.124	55.074	46.324	25.725	10.663	3.590	1.507		142.263
146.348	55.054	46.298	25.831	10.618	3.579	1.501		148.349
152.839	55.036	46.274	25.938	10.576	3.568	1.496		154.903
159.606	55.018	46.249	26.045	10.535	3.557	1.498		161.736
167.864	55.000	46.221	26.168	10.491	3.544	1.484		170.276
175.268	54.985	46.198	25.271	10.455	3.533	1.478	1.749	177.552
182.983	54.972	46.175	26.372	10.420	3.522	1.473		185.343
191.024	54.960	46.153	26.470	10.385	3.510	1.467	1.723	193.463
200.831	54.948	46.128		10.352	3.497	1.461	1.708	203.367

#### NSHG/HOL/TR 75-45

MACH NO = 20.00	CONE ANGLE =	8.00	ANGLE OF	ATTACK =	10.00
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		P /	P FREE-ST	TREAM AT	PLANE	ANGLES		
LYON	0.	30.	60.	90.	120.	150.	188.	SZRN
25 674	55.129	45.188	29.530	10.024	3.000	2.683	4.063	26.291
25.478		45.100	29.095	10.409	2.994	2.565	3.972	27.613
25.788	54.953	45.506	28.606	10.876	3.007	2.445	3.860	29.231
28.390	54.756	45.652	28.231	11.252	3.026	2.356	3.758	30.682
29.827	54.623		27.903	11.582	3.049	2.278	3.652	32.195
31.326	54.540	45.766	27.613		3.073	2.209	3.541	33.774
32.889	54.506	45.835		11.857 12.074	3.099	2.148	3.428	35.420
34.519	54.514	45.871	27,350			2.985	3.299	37.429
36.528	54.571	45.886	27.068	12.255	3,131 3,161	2.037	3.194	39.228
38.290	54.655	45.889	26.841	12.357	3.194	1.996	3.095	41.399
40.143	54.757	45.887	26.626	12.421		1.960	3.004	43.346
42.071	54.858	45.884	26.424	12.455	3.228		2.920	45.071
44.076	54.951	45.887	26.237	12.479	3.262	1.928	2.831	47.536
46.517	55.040	45.909	26.036	12.463	3.303	1.895		49.741
48.731	55.100	45.944	25.879	12.436	3.338	1.869	2.760	52.336
50.974	55.146	45.992	25.735	12.390	3.37-2	1.844	2.694	
53.341	55.179	46.049	25.602	12.324	3.407	1.821	2.630	54.427
56.228	55.206	46.125	25.458	12.228	3.446	1.795	2.559	57.342 59.956
58.816	55.224	46.192	25.344	12.138	3.479	1.773	2.501	
61.516	55.239	46.263	25.235	12.046	3.510	1.753	2.446	62.582
54.332	55.254	46.324	25.142	11.954	3.538	1733	2.394	65.526
67.27 Q	55.268	46.381	25.058	11.864	3.563	1.714	2.345	68.493
79.859	55.282	46.435	24.980	11.759	3.586	1.693	2.291	72.118
74.082	55.291	46.472	24.931	11.669	3.602	1.675	2.247	75.372
77.445	55.297	46.498	24.898	11.580	3.614	1.658	2.206	78.767
89.954	55.299	46.515	24.883	11.492	3.623	1.642	2.167	82.312
84.617	55.297	46.524	24.885	11.407	3.630	1.626	2.130	86.010
89.093	55.287	46.524	24.906	11.311	3.636	1.608	2.090	90.530
93.110	55.275	46.518		11.231	3.640	1.594	2.056	94.587
97.303	55.259	46.507	24.988	11.156	3.643	1.581	2.025	98.821
101.679	55.239	46.491	25.048	11.684	3.644	1.569	1.995	103.240
107.024	55.214	46.47EC	25.131	11.005	3.642	1.556	1.962	-
111.823	55.191	46.449	25.213	10.941	3.638	1.546		113.483
116.829	55.16.8	46.426	25.302	10.881	3.631	1.537		118.539
122.052	55.144	46.40.2	25.398	10.824	3.623	1.529	1.889	
127.500	55.121	46.378	25.498	10.770	3.613	1.521		129-315
134.155	55.095	46.349	25.619	10.711	3.600	1.513		136.735
140.124	55.074	46.324	25.725	10.663	3.590	1.507		142.263
146.348	55.054	46.298	25.831	10.618	3.579	1.501		148.349
152.839	55.036	46.274	25.938	10.576	3.568	1.496		154.903
159.606	55.018	46.249	26.045	10.535	3.557	1.490		161.736
167.864	55.00 <u>:</u>	46.221	26.158	10.491	3.544	1.484		170.276
175.268	54.985	46.198	25.271	10.455	3.533	1.478		177.552
182.983	54.972	46.175	26.37-2	10.420	3.522	1.473		185.343
191.024	54.960	46.153	26.47-0	10.385	3.510	1.467		193.463
200.831	54.948	46.128	26.582	10.352	3.497	1.461	1./.08	203.367

MACH NO = 25.00 CONE ANGLE = 8.00 ANGLE OF ATTACK = 10.00

•			COME AND	- O - O	V AIIOL	C 01 A11	70N - 1	
		·p /	P FREE-S	TREAM AT	PLANE	ANGLES		
L/RN	0 •	30.	60.	90.	120.	150 •	180.	SZRN
• • • • • • • • • • • • • • • • • • • •		350		,,,,	100	1 J 0 •	1000	377.11
24.956	85.683	69.834	45.650	14.749	4.366	3.987	6.058	25.763
26.154		70.064	44.935	15.311	4.346	3.808	5.933	26.973
27 - 465		70.345	44.191	15.946	4.351	3.641	5.797	28.297
29.073		70.678	43.427	16.677	4.381	3.472	5.626	29.921
30.515		70.892	42.870	17.238	4.413	3.345	5.467	31.376
32.279		71.049	42.321	17.782	4.452	3.216	5.268	33.154
33.853		71.103	41.907	18.147	4.486	3.117	5.090	34.748
35.498	84.617	71.116	41.525	18.415	4.522	3.029	4.912	36-408
37.501	84.780	71.107	41.106	18.620	4.568	2.938	4.712	38.432
39.293	84.953	71.088	40.769	18.723	4.610	2.871	4.551	40.241
41.472	85.151	71.063	40.403	18.783	4.660	2.803	4.380	42.442
43.420	85.299	71.056	40.115	18.798	4.704	2.752	4.247	44.408
45.444	85.420	71-074	39.850	18.784	4.747	2.706	4.125	46.452
47.906	85.526	71.130	39.571	18.725	4.799	2.657	3.994	48.939
50.109	85.589	71.203	39.356	18.636	4.845	2.617	3.888	51.163
52.401	85.631	71.294	39.159	18.513	4.892	2.580	3.787	53.478
55.195	85.662	71.413	38.948	18.339	4.948	2.539	3.675	56.299
57.699	85.683	71.521	38,778	18.180	4.995	2.506	3.583	58.827
60.754		71.649	38.592	17.999	5.047	2.468	3,481	61.913
63.494		71.750	38.447	17.847	5.086	2.437	3.400	64.679
66.351		71.840	38.322	17.698	5.119	2-407	3.322	67.565
69.839		71.927	38.205	17.525	5.149	2.373	3 • 238	71-088
72.969		71.984	38.131	17.378	5.168	2.344	3.171	74.248
76.233		72.025		17.234	5.183	2-316	3.107	77.545
80.220		72.056	38.061	17.070	5.196	2-283	3.036	81.570
83.795		72.067	38.070	16.933	5.204	2 • 257	2.979	85.181
88.162		72.066	38.111	16.780	5.212	2•:227	2.915	89.590
92.079		72.055	38.170	16.655	5.217	2.203	2.862	
96.164		72 • 0.37	38 - 250	16.536	5.219	2.180	2.812	97.671
101.152		72.008	38 • <b>36</b> 8⁻	16.406	5.216	2 • 155		102.708
105.626	-	71.978		16.301	5.208	2.136		107.226
111.083		71.740	38.647	16.186	5.193	2.115		112.743
115.989		71.904	38.795	16.094	5.176	2.099		117.690
121 - 097	85.566	71.867	38.952	16.007	5.156	2.084	-	122.849
127 • 332	· -	71.822	39.143	15.912	5.133	2.068	-	129.145
132.922		71.783	39.311	15.836	5.113	2-055	-	134.790
138.748		71.743	39.483	15.764	5.094	2.044		140.673
145.856		71.697	39.684	15.686	5.072	2.031		147.851
152.226		71.658	39 • 856	1-5 • 624	5.051	2.021		154.284
159.996		71.613	40.055	15.555	5.027	2.010		162.131
166.957		71.575	40.224	15.500	5-006	2-000		169.160
174.208		71.539	40.389	15.448	4. 988	1-990		176.482
183.049		71.497	40.577	15.391	4.963	1-979		185.409
190.966	5	71.462	40.733	15.345	4.944	1.969		193.404
200.616	85•260	71.422	40.911	15.295	4.921	1.957	2.290	203.150

MACH NO = 30.00 CONE ANGLE = 8.00 ANGLE OF ATTACK = 10.00

		P /	P FREE-S	STREAM	AT PLANE	ANGLES		
L/RN	0.	30 •	60•	90•	120 •	150 •	180 -	S/RN
		0.0						
.730	218.573	202.236	162.795	119.636	86.621	67.691	61.681	1.298
.890	139.858	128.097	100.263	71.192		38.278	34.647	1.460
	133.229		95.017	67.535		36.704	33.339	1.668
_	119.974		84.461	60.044		33.925	31.148	2 * 0 3 3
-	108-114	97.991	75.060			31.328	29.196	2.413
2.343	96.358	86.241	64.802	45.634	33.845	28.394	27-002	2.928
2.829	89.051	78.734	57.744	40.122	29.940	26.120	25.372	3.419
3.431	83.790	72.811	51.674	35.035	25.941	23.27-2	23.258	4.027
3.961	81.619	69.754	47.971	31.604	23.254	21.071	21.342	4.562
4.581	81.203	67.990	44.963	28.649	20.745	19.071	19.465	5.188
5.106	82.227	67.651	43.244	26.740	19.009	17.720	18.244	5.718
5.703	84.476	68.263	41.940	25.026	17.413	16.389	17:087	6.321
6.200	86.844	69.376	41.271	23.909	16.353	15.404	16.198	6.823
6.759	89.826	71.048	40.859	22.906	15.369	14.426	15.238	7.387
7219	92.635	72.636	4.0.730	22.225	14.669	13.727	14.497	7.852
7.735	96.350	74.637	40.766	21.580		13.052	13.753	6.37-3
8.158	99.887	76.536	40.920	21.124	13.448	12.571	13.225	8.800
8.633	104.245	79∙033	41.211	20.679	12.922	12.099	12.724	9.279
9.024	107.989	81.420	41.538	20.356	12.533	11.751	12.374	9.675
9.466	112.156	84.451	41.989	20.036		11.395	12-036	10.121
	115.429	87.198	42.425	19.803	-	11.121	11.787	10.492
10.254	118.796	90.492	42.985			10.831	11.529	10.916
	121.244	93.320	43.506			10.600	11-326	11.274
	123.553		44.166			10.349	11=103	11.688
	125.053	99•183	44.779	19.110	· ·	10.147	10.918	12.042
	126.253		45.560	18.979	*	9.922	10709	12.457
	126.845	104.306	46.295	18.878		9.737	10-535	12.817
	127.092		47.244	18.7-71		9.531	10.340	13.245
	126.980	108.282	48.149	18.688		9.364	10-181	13.622
	126.523		49.332	18.599		9.169	10:007	14.078
	125.877	-	50.470			9.008	9:873	14.486
	125.030	111-169	51.735	18.464		8.852	9.753	14.914
	123.895		53.370			8 • 67=2	9.638	15.439
	122.965		54.884	18.347		8.520	9.561	15.909
	122-104		56.755	18.299	_	8.342	9.495	16.483
	121.655		5.8 • 427	18.269		8.183	9.456	17.004
	121.480	106.721	60.411	18.251		7.986	9:424	17.651
	121.579		62.093	18.256		7.800	9.399	18.247
	121.897		63.937	18.293		7.559	9.361	18.998
	1-22-247		65.306	18.361		7.328	9:311	19.699
	122.628	100.431	66.486		-	7.036	9-225	20.576
	122.870	99.800	67-055			6.776	9-127	21.361
	123.069	-				6 465	8.987	22.326
	123.197	99.462	66.996			6.196	8-850	23.206
23.519	123.243	99.641	66.340	19.823	6.129	5.884	8-678	24.312

MA	ICH NO =	30.00	CONF	ANGLE	=	8- <b>-</b> -00		ANGLE	OF	ATTA	CK = 1	0.00
		Р,	P FRE	F-STR	FAM	A-T	PI	ANE	ANGL	F9		
L/RN	0.	30.		0.	90		12		150		180.	S/RN
<b>27</b> (11	3 4	004	J		,,	•				, •	2000	•
24.541	123.084	99.902	65.4	90 2	20.42	6	6.0	48	5.62	1	8.522	25.344
	122.638		64.2	75 2	21.31	1	6.0	02	5.32	8.8	8.329	26.670
27.106	122.154	100.738	63.1	65 2	22.20	4	6.0	02	5.09	91	8.149	27.934
	121.675		61.9	85 2	23.28		6.0		4.84	2	7.914	29.524
	121.400		61.1		412		6.0		4.65		7.692	30.949
	121.246		60.3		24.94		6.1		4.46		7.409	32.689
	121.235		59.7		25.50		6.1		4.32		7.152	34.249
	121.364		59.0		25.97		6.2		4.17		6.848	36.151
	121.578		58.5		26 • 23		6.2		4.05		6.596	37.854
	121.882		57.9		26.41		6.3		3.94		6.321	39.925
	122.137		57.5		26 • 49		64		3.89		6.106	41.775
	122.394		57.0		26.51		6.4		3.76		5.879	44.024
	122.568		55.6		26.49		6.5		3.70		5.702	46.033
	122.717		56.2		26.39		6.5		3.62		5.511	48.476
	122.800		55.9		26•:25		6.6		3.57		5.358	50.660
	122.850		55.7		26.05		6.7		3.51		5.212	52.933
	122.885		55.4		25.78		6.7		3.45		5.049	55.702
	122.908		55.1		25.54		6 . 8		3.40		4.916	58.182
-	122.937		54.9		25.26		6.9		3.39		4.769	61.208
	122.965		54•7 54•5		2504 24. <sub>-</sub> 78		6.9 7.0		3.30		4.651 4.521	63.921 67.232
	123.003 123.037		54.3		24• <i>-</i> 70		7.0		3.21		4.418	70.201
	123.037		54.2		2430		7.0		3.16		4.306	73.825
	123.096		54.1		24.09		7 - 0	_	3.12		4.215	77.076
		103.269	54.1		23.85	-	7.1		3.07		4.114	81.043
		103.284	54.1		23.65		7.1		3.0		4.032	84.601
	123.087		54.2		23.43		7-1		2.99		3.941	88.943
		103.265	54.3		23.25	_	7.1	_	2.99		3.866	
		103.233	54.4		23.05	-	7 - 1		2.9		3.783	
		103.197	54.6		22.89		7-1		2.8			101.853
		103.147	54.8		22.72		7 - 1		2.8			107.055
	122.858		55.0		22.57		7.0		2.8			111.719
	122.796		55.2		22.42	-	7.0		2.79			117.411
	122.744		55.5	-	22-30	-	7 • 0		2.7		3.466	122.514
	122.686		55.8		22-16		6.9		2.7		3.410	128.739
132.455	122.638	102.863	56.0	159 2	22.06	52	6.9	44	2.7	31	<b>7.365</b>	134.319
139.194	122.585	102.797	56.3	53 2	21.94	16	69	8.0	2.7	L O	3.317	141.124
145.232	122.543	102.740	56.6	07	21.85	54	6.8	76	2.69	94	3.277	147.221
		102.674	56.9		21.79		6.9		2.6			154.656
159.188	122.461	102.618	57.1		21.67		6 • 8		2.6			161.315
		102.555	57.4		21.58		6 • 7		2.6			169.432
		102.501	57.6		21.51		67		2.6			176.701
	122.358		57.9		21.43	-	6.7		2.6			185.560
	122.333		58.1		21.37	_	6.6		2.59			193.490
200.618	122.307	102.333	58.4	39	21.30	<b>39</b> .	6.6	37	2.5	72	3.012	203.152

M	ACH NO =	3.50	CONE ANG	LE = 9.0	00 ANGL	E OF ATT	TACK = 1	0.00
		0.4	5 F0FF			****		
1.401	0		P FREE-S			ANGLES		
L/RN	0 •	30.	60.	90•	120.	150.	180.	SZRN
•683	4.390	4.114	3.454	2.696	2.081	1.708	1.586	1.249
• 75 4			2.829			1.355	1.255	
.816	3.076		2.365			1.102	1.018	-
•971		2.682				1.013		
1.108	2.881	2.671						
1.324	2 • 865	2.653						
1.511	2.833	2.622	2.118	1.592				2.090
1.797		2-565	2.067	1.554				
2.040	2.728	2.519	2.026	1.521		•990		
2.395	2.671	2.453	1.955	1.473		•991	• 953	2.984
2.684	2.646	2-421	1.917	1.439	1.130	• 99 0		3.277
3.098	2.621	2.393	1.883	1.403	1-4115	. 988	• 965	3.696
3.430	2.615	2.380	1.860	1.381	1.085	985	.970	4.032
3.900	2.616	2.373	1.838	1.355		•977	• 975	4.509
4.273	2.623	2.374	1.828	1.338	1.047	970	• 97.7	4.886
4.796	2.640	2-382	1.820	1.319	1.033	• 961 • 957 • 955	• 975	5.416
5.208	2.656	2-392	1.816	1.308	1.023	• 95 7	.974	5.833
	2.679			1.297	1.012	• 955	. 974	6.416
	2 • 6 9 8				1 • 004	•955	. 977	
	2.723				• 996	•957	• 984	7.515
7.367					•990		• 990	8.018
8.06.0	_							8.720
8.598					•981			9.265
9.340		2.509				•965		
9.915		2.522					1.014	
10.707	-						1.018	
11.320		2-547					1.021	
12.165 12.820		2.559	1.875					12.877
13.722	2 8 8 5 5	2÷567 2:•576	1.881	1.269				13.539
14.421		2:•583				•976		
15.142	2.872	2.589	1.895 1.901	1.271	•961	•977	1.037	
16.136	2.876	2:•594	1.901	1.272 1.274	•960 •958	• 97 9	1.041	
16.908			1.913	1 27E			1.044	
17.976	2.880	2.602	1.920	1.277	• <del>•</del> •957	•981		
18.807		2:604	1.925	1.27-8	•:957	•983 •983	1.050 1.052	18.760
19.957		2.607	1.932	1.280	•:95 <i>7</i>	• 984	1.054	19.601
20.852		2 608	1.936	1.281	•957	•985	1.055	20.765 21.671
22.091	2.883	2:•610	1.942	1.283	• 957	• 986	1.057	22.926
23.057	2.883	2:.610	1.946	1.284	•=958	•986	1.058	23.904
24.395	2.883	2.611	1.951	1.286	• <del>•</del> 958	•987	1.059	25.258
25.437	2.883	2:•611	1.955	1.287	•959	•987	1.059	26 <sub>•</sub> 314
26.882	2.883	2.610	1.959	1.288	•960	•987	1.060	27.77
28.009		2.610	1.962	1.289	••96 0	• 988	1.060	28.918
29.571	2.882	2.609	1.966	1.291	•961	.988	1.060	30.499
			-		<b>-</b>			200,00

MAC	CH NO =	3.50 C	ONE ANGL	E = 9.00	ANGLE	OF ATT	1CK = 10	3.00
		D / E	FREE-ST	REAM AT	PLANE	ANGLES		
L/RN	0.	30.	60.	90•	120 •	150 •	180-	S/RN
LZKI		<b>~~~</b>						
30.789	2.882	2.609	1.969	1.292	.962	。988	1.060	31.732
32-477	2.881	2.608	1.972	1.293	•963	- 989	1.060	33.442
33.794	2.881	2.608	1.974	1.295	• 954	• 98 9	1.059	34.775
35.619	2.881	2.607	1.976	1.296	•965	• 98 9	1.059	36.623
37.043	2.881	2.606	1.977	1.297	• 966	.989	1.059	38.064
39.017	2.881	2.605	1.978	1.299	•967	•990	1.058	40.063 41.622
40.557	2.881	2.605	1.978	1.300	• 96-7	.990	1.058	43.783
42.691	2.881	2.604	1.979	1.392	•968	•99ŋ	1.058 1.058	45.469
44.356	2.881	2.603	1.979	1.303	•968	.991	1.057	47.806
46.665	2.892	2.603	1.978	1.305	•969	•991	1.057	49.629
48.465	2.882	2.693	1.977	1.307	.970	•991 •992	1.057	52.157
50.962	2.883	2.602	1.976	1.309	•970	• 992	1.057	54.129
52.910	2.884	2.602	1.975	1.311	.971	•993	1.057	56.863
55.610	2.884	2.602	1.974	1.313	.971 .971	• 993	1.057	58.995
57.716	2.885	2.602	1.972	1.314	•972	•993	1.057	61.201
59.895	2.885	2.601	1.971	1316	•97-2	.994	1.057	64.259
62.915	2.886	2.601	1.969	1.318 1.320	.972	.994	1.057	66.645
65.27-2	2.887	2.602	1.967 1.965	1.322	972	994	1.056	69.954
68.540	2.887	2.602	1.964	1.324	.973	995	1.056	72.535
71.089	2.888	2.602	1.962	1.325	.973	995	1.056	76.115
74.625	2 • 888	2-602	1.960	1.327	.973	.995	1.056	78.907
77.38.3	2.889	2.602 2.603	1.958	1.329	•973	.996	1.056	82.781
81.209	2.889 2.890	2.603	1.956	1.330	.973	.996	1.056	85.803
84.194	2.890	2.60.3	1.954	1.331	• 973	• 996	1.056	89.995
88.334 91.564	2 • 8 9 0	2.603	1.953	1.332	973	• 996	1.056	97.265
96.045	2.891	2.604	1.951	1.334	•973	•997	1.056	97.802
99.542	2.891	2.604	1.949	1.335	.973	.997	1.055	
104.393	2.891	2.604	1.948	1.336	.973	•997	1.055	
108-178	2.891	2.605	1.946	1.336	.973	•997		
113.429	2.891	2.505	1.945	1.337	•973	•997		115.402
117.527	2.891	2.605	1.944	4.338	.974	•997	1.055	119.551
123.212	2.891	2.606	1.942	1.339	.974	• 998	1.055	125.307
127.648	2.891	2.606	1.941	<b>1</b> • 339	• 97-4	• 998	1.055	129.799
133.804	2.891	2.606	1.940	1.340	. 974	•998	1.054	136.031
138.608	2.891	2.606	1.939	1.340	» 974	. 998	1.054	140.895
145.272	2.891	2.606	1.938	1.340	.974	•998		147.643
150.474	2.891	2.607	1.938	1 • 341	•974	• 998	1-054	152.909
157.691	2.891	2.607	1.937	1.341	•97·5·	•998	1.054	160.216 165.918
163.323	2.891	2.607	1.937	1.341	.975	•999		173.830
171.137	2.890	2.607	1.936	1.341	•975	•999		180.005
177.236	2.890	2.607	1.936	1.341	•975	.999		188.572
185.697		2.607	1.936	1.341	•975	•999 •999		195.258
192.301	2.890	2.607	1.935	1.341	•975 •975	•999		204.534
201.464	2.889	2:•.607	1.935	1.341	• 7/2	• 777	T • 054	E 07 # 207

1	IACH NO =	5.00	CONE	ANGLE	=	9.00	A	NGLE C	PF /	ATTAC	)K =	10.00
				EE-STR			PLA		NGL			
L/RN	1 0.	30.		60.	90	•	120	• 1	150	•	180	SZRŃ
•709	7.465	6.965	5.	738	4•₌36	in .	3.27	n 2.	.62	5 2	2.417	7 1.274
.809		5.161	4.		3.12		2.30		82		.67	
•916		4.583			2.69		1.96		54		1.41	
1.099		4.504			2.64		1.92		52		39	
1.309		4.373			2.54		1.87		491		1.37	
1.549		4.213			2.44		1.81		461		1.36	
1.817		4.045			2 <sub>•-</sub> 33		1.73		43		L • 339	
2.115		3.890			2.21		1.66		39		1.316	
2.440		3.741			2.09		1.59		35		1.298	
2.790					2.00		1.52		32		27	
3.162					1.92		1.45		28		1.259	
3.554		3.544					1.39		24		1.234	
4.067		3.530					1.33	1 1.	19		196	
4.493							1.29		15		1.164	
4.931							1.25		13		1.13	
5.379							1.22		11		1.119	
5.838		3.643					1.19		09		1.106	_
6308								4 1			1.09	
6.79							1.15		06		1.09	
7 - 283							1.13		05		1.08	
7.790		3.854			- =		1.12		04		1.076	
8.311		3.906					1.11		03		1.068	
8 • 8 4 8	4.557	3.956					1.10		02		1.062	
9.549	4.616	4 • 014	2.				1.08		-01		1.05	6 10.224
10.125	4.658	4.056	2.	706	1.60	4	1.07	7 1.	.01	0 1	1.05	4 10.811
10-7-28	4.695	4 • 0 95	2.	733	1.60	15	1.06	8 1	.00	5 1	1.059	5 11.421
11.357	4.727	4-131	2.	760	1 • 6.0	1-7	1.05	9 1	00	2 1	1.05	7 12.058
12.016	4.753	4 • 1 54	2.	787	1 - 61	.0	1.05	1 .	99	9 1	1.06	12.725
12.7-0:8		4 - 193			1 • 61	.4	1.04		99		1.06	
13.439		4 • 219			1.61		1.03		.99	4 :	1.06	
14.21		4.240			1 • 62		1.03		99		1.07	
15.027		4.255			1 • 63		1.02		98		L • 071	
15 - 86 8		4 • 26 7			1 • 63		1.01		98		1.08	
	4.812		2.	938	1.64	7	1.01	3	98	2 :	1.08	3 17.506
17.867		4.278	2.	964	165	5 <b>7</b>	1.00	9 (	97	8 :	1.087	
18.806		4 • 27 8			1 • 66		1.00		97		1.09	-
19.78		4 - 277			1 • 67		1.00		97		1.092	
20.791		4 • 275			<b>1</b> 68		1.00		96		1.09	-
21-839		4.272			1.69		1.00		96		1.09	
22.928		4.269			1-70		1.00		96		1.09	
24.058		4.265			1.71		1.00		96		1.097	
25-232		4.262			1 - 71		1.00		-96		1.09	
26.451		4.258			1.72		1.00		95		1.09	
27.717		4.254			1.73	-	1.01		95		1.09	4.5
29.033	4.795	4.251	3.	076	1.73	8	1.01	3	95	5 1	1.09	4 29 954

MAC	н но =	5.00	CONE ANGL	E = 9.0	0 ANGL	E OF ATT	ACK = 1	.0.0
		D /	P FREE-ST	REAM AT	PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150.	160.	SZRN
LIKN	U •	30 •	<b>60</b> •	<b>50 •</b>	1200	190•	TOD	37 × IV
30.749	4.793	4.247	3.077	1.747	1.016	• 954	1.093	31.692
32-182	4.792	4.244	3.077	1.754	1.018	• 95-3	1.092	33.143
33.671	4.791	4.241	3.075	1.761	1.021	•953	1.091	34.651
35.218	4.791	4.239	3.072	1-768	1.024	• 95 3	1.090	36.217
36.826	4.792	4.237	3.068	1.775	1.026	• 95 2	1.088	37.844
38.496	4.792	4.236	3.063	1.782	1.029	<b>-</b> 95 2	1.087	39.535
40.231	4.793	4.235	3.057	1.789	1.031	• 95 3	1.086	41.292
42.034	4.795	4.234	3.051	1.796	1.034	• 953	1.085	43.117
43-907	4.797	4.234	3.045	1.803	1.036	• 95 3	1.084	45.014
45.853	4.798	4.234	3.038	1.809	1.037	• 95 4	1.082	46.984
47.875	4.801	4.235	3.031	1.815	1.039	• 955	1.081	49.031
50.514	4.803	4.235	3.022	1.821	1.041	.955	1.080	51.703
52.718	4.806	4.237	3.015	1.826	1.042	.956	1.079	53.935
55.008	4.808	4.238	3.008	1.830	1.043	•957	1.078	56.253
57.388	4.810	4.239	3.001	1.834	1.043	957	1.077	58.663
59.862	4.812	4.241	2.995	1.838	1.044	958	1.077	61.168
62-432	4.814	4.242	2.988	1.841	1.045	• 95 9	1.076	63.770
65.104	4.816	4.244	2.982	1.843	1.045	959	1.075	66-475
67.881	4.818	4.246	2.976	1.845	1.046	960	1.075	69.287
70.768	4.820	4.248	2.970	1 - 847	1.046	• 96-1	1.074	72.210
73.769	4.821	4.249	2.965	1.848	1.047	.961	1.074	75.248
76.888	4.822	4.251	2.960	1.849	1.047	96?	1.073	78.406
80.962	4.823	4.253	2.954	1.849	1.048	• 96 3	1.073	82.531
84.367	4.824	4.254	2.950	1.849	1.049	.963	1.072	85.978
87.907	4.824	4.255	2.947	1.849	1.049	.964	1.072	
91.588	4.824	4.256	2.943	1.849	1.050	.964	1.071	93.289
95.416	4.825	4.257	2.941	1.848	1.051	•965	1.071	
99.396	4.824	4.258	2.938	1.848	1.052	-965	7	101.195
103.535	4.824	4.259	2.936	1.847	1.053	•966		105.385
1-0784-0	4.824	4.260	2.935	1.846	1.053	.966		109.744
112.316	4.823	4.250	2.934	1.845	1.054	96.7	1.070	114.276
116.972	4.823	4.260	2.933	1.843	1.055	•967	- %	118.983
121-813	4.822	4.260	2.932	1.842	1.056	957	-	123.891
128 - 138	4.821	4.260	2.932	1.840	1.057	• 968		130.295
133.426	4.820	4.260	2.933	1.838	1.058	.968	_	135.649
138.926	4.819	4.260	2.933	1.837	1.059	.968		141.217
144.645	4.818	4.250	2.934	1.835	1.060	. 969		147.008
150.593	4.817	4.260	2.935	1.833	1.051	•969		153.030
156.778	4.816	4.259	2.936	1.831	1.061	• 96 9	_	159.292
163.211	4.815	4.259	2.938	1.829	1.062	•969		165.805
169.899	4.814	4.259	2.940	1.827	1.063	• 96 9	-	172.577
176.855	4.813	4.258	2.942	1.825	1.064	• 96 9		179.619
184.088	4.813	4.258	2.944	1.823	1.054	•969		186.942
191.608	4.812	4.257	2.946	1.821	1.065	• 97 0		194.556
291.431	4-811	4.257	2.949	1.818	1.066	.970		204.501

#### NSHC/HOL/TR 75-45

9.00

ANGLE OF ATTACK = 10.00

CONE ANGLE =

MACH NO = 10.00

		P /	P FREE-S	TREAM !	NT PLANE	ANGLES		
L/RN	0.	30.	60.•	90•	120.	150.	180.	S/RN
•725	25.572	23.711	19-197	14.228	10.396	8.181	7.474	1292
•854	17.958	16.530	13.116	9.483	6.778	5.253	4.776	1.424
1.006	16.936	15.544	12.250	8.811	6.298	4.905	4.474	1.579
1.288	15.815	14.458	11.308	8.114	5.827	4.570	4.183	1.863
1.566	14.782	13,470	10.459	7498	5.447	4.350	4.017	2.145
1.950	13.593	12.326	9.467	6.743	4.945	4.049	3.795	2.534
2.308	12.784	11.479	8.682	6.147	4.562	3.814	3.618	2.897
2.774	12.101	10.745	7.941	5.539	4.122	3.554	3.427	3.368
3.183	11.765	10.335	7.482	5.132	3.786	3.323	3.259	3.783
3.604	11.609	10.086	7.133	4.787	3.506	3.096	3.075	4.209
4.116	11.616	9.954	6.843	4.466	3.233	2.865	2.863	4.727
4.544	11.748	9.955	6.681	4.263	3.043	2.711	2.717	5.160
5.055	12.018	10.059	6.563	4.073	2.852	2.560	2.579	5.677
5.476	12.303	10-211	6.511	3.947	2.720	2.452	2.486	6.104
5:•975	12.679	10.446	6.493	3.830	2.593	2.336	2.386	6.609
6.385	13.001	10.671	6.505	3.754	2.507	2 • 25 0	2.307	7.024
6.869	13.392	10.956	6.546	3.683	2.420	2.160	2.218	7-515
7-• 267	13.726	11.200	6.595	3.636	2.357	2.096	2.150	7.917
7-659	14.058	11.449	6.657	3.598	2.300	2.040	2.089	8.314
8.123	14.478	11.756	6.74.3	3.560	2.238	1.984	2.027	8.784
8.506	14.806	12.021	6.825	3.535	2.191	1.943	1.985	9-172
8.964	15.170	12.344	6.931	3,509	2.140	1.901	1.944	9.635
9.345	15.439	12.615	7.026	3.492	2.102	1-869	1.917	10.022
9.806	15.712	12-933	7.147	3.475	2.060	1.834	1.890	10.487

M	ACH NO =	10.00	CONE ANGL	LE = 9	-00 AND	GLE OF AT	TACK =	10.00
			0					
	•		P FREE-ST					
L/RN	0.	30.	60•	90•	1.20 •	150.	180.	SZRN
26.506	16.008	13.669	9.200	4.226	1.519	1.210	1.598	27.396
28.025		13.676		4.313			1.574	
29.344				4.377		1.164	1.552	•
30.996		13.693		4-443			1.525	
32.432		13.700		4.488				
33.924		13.706		4.526				
35.791		13.712		4.563				
37.414		13.717		4.587				
39.445				4.609				
41.210			8.721	4.623				
43.419		13.736	8.721 8.674	4.633				
45.338		13.744		4.637		1.065	1.358	
47.331		13.752		4-638				
49.826		13.763	8.564	4.635				
51.995		13.773	8.534	4.630			1.313	
54.711			8.501	4.619				
57.073			8.476					
60.031			8.450					
62.604			8.431		1.781	1.039		
65.829		13.828	8.412	4-561	1.790			
68.635			8.400					
71.555			8.390					
75.215		13.848						
78.400		13.851						
82.394		13.854						
85.871	16.134	13.854	8.383					87.501
90.230	16.130	13.854						91.914
94.024		13.853				1.043		95.756
97.973		13.851		4.404		1.044		
102.922	16.116	13.848		4.385		1.045	-	104.765
107.230		13.845	8.434	4.370		1.046		109.127
112.630		13.841				1.047		114.594
117.330	15.101	13.837	8.467	4.339		1-047		119.353
		13.832	8 - 487	4.322	1.846	1.048	1.177	1-25-316
128.347	16.090	13.828	8.504	4.309	1.847	1.048		130.506
134.770	16.085	13.823	8.525	4.294	1.848	1.048		137.010
140.359		13.819	8.542	4.282	1.848	1.048		142.668
146.171	16.077	13.815	8.559	4.270	1.848	1.048		148.553
153.453	16.073	13.811	8.580	4.256	1.848	1:-048		155.925
159.787	16.070	13.807	8.597	4 - 245	1.848	1.047		162.339
167.722	16.066	13.803	8.616	4.232	1.848	1.047		170.372
174.623	16.063	13.800	8.632	4.222	1.847	1.046		177.359
183.266	16.061	13.796	8.651	4.210	1.846	1.046		186.111
190.783		13.793	8.666	4.201	1.845	1.045		193.721
200.196	16.057	13.790	8.683	4.190	1.844	1.045		203 - 251

MACH NO = 15.00 CONE ANGLE = 9.00 ANGLE OF ATTACK = 10.00

		D /	P FREE-S	TREAM A	T PLANE	ANGLES		
L/RN	0 •	30 •	60.	90.	120.	150 •	180.	S/RN
E) KH	0.4	.,,,	<b>50</b> •	,,,,				
•728	55.729	51.603	41.628	30.695	22.303	17.474	15.941	1.296
.859	38.460	35.338	27.905	20.060	14.277	11.044	10.037	1.460
1.091	36.060	33.008	25.847	18.465	13.125	10.184	9.279	1.664
1.384	33.324	30.385	23.623	16.876	12.121	9.534	8,741	1.961
1.732	30.464	27.665	21.275	15.164	11.028	8-885	8.251	2.313
2.130	27.929	25.222	19.147	13.514	9.917	8.188	7.722	2.716
2.569	26.075	23.177		12.030	8.933	7.600	7.275	3.161
3.036	24.865	21.839		1.0.851	8.010	6.995	6.831	3.634
3.518		21.010	14.778	9.894	7.242	6.388	6.338	4.122
4.006		20.593		9.149	6.625	5.871	5.865	4.615
4.490	24.409			8.589	6.118	5.463	5.478	5.106
4.968		20.661		8.154	5.699	5.132	5.179	5.589
5.436		21.004		7.814	5.361	4.848		6.063
5.892		21.468		7.552	5.092	4.596	4.711	6.525
6.337		21.996		7.350	4.874	4.376	4.502	6.975
6.768		22.551		7.190	4.691	4.187	4.308	7 <b>=•41</b> 2
7.188		23.128		7.060	4.531	4.027	4.135	7.₊837
7.595		23.738		6.953	4.389	3.893	3.985	8.250
7.992	30.865	24.393		6.865	4.253	3.778	3.861	8.652
8.380	31.797	25.094		6.798	4.152	3.∙679	3.758	9.044
8.761	32.658	25.828	1:3.719	6.777	4.053	3.592	3 • 674	9.430
9.137	33.422	26.579	13.911	6.674	3.967	3.514	3.603	9: 810
9.510	34.074	27.324	14.115	6,629	3.889	3.441	3.542	1-0188
9.883	34.606	28.043	<b>1</b> 4.333	6.593	3.818	3.374	3.487	10.566
10.258	35.017	28.719	14.565	6.564	3.751	3.310	3.434	10.945
10.637	35.309	29.334	14.815	6.541	3.686	3.249	3.383	11.329
11.023	35.491	29.876	15.084	6.523	3.623	3.189		11.720
11.419	35.577	30.336	15.376	6.508	3. 559	3.132	3-282	12-121
11.827	35.585	30.702	15.692	6.497	3.495	3.076	3-231	12.534
12.251	35.536	30.968	16.034	6.490	3.430	3.022	3.181	12.963
12.770	35.427	31.144	16.468	-6.484		2.962	3-127	13.489
13.241	35.296	31.182	16.868	6.483		2.912	3.085	13.966
13.738	35.143	31.126	17.290	6.484		2.863	3.050	14.469
14.262	34.990	30.991	17.722	6.489		2.815	3.022	14.999
14.7114	34.863	30.784	18.153	6.499	3.068	2.768	3.003	15.558
15.402	34.784	30.516		6.517	2.993	2.719	2.991	16.153
16.031	34.754	30.208	18.954	6.544		2.666	2-984	16.791
16.709	34.759	29.895	19.294	6.585	-	2,608	2.979	17.477
17.444	34.785	29.618		6 • 645		2.544	2.972	18.221
18.243	34.816	29.402		6.728	2.699	2.473	2 959	19.030
19.111	34.841	29.257				2.396	2938	19.909
20.043	34.854	29.183		6.984		2.315	2:•909	20.852
21.046	34.854	29.162		7-162		2.232	2 . 873	21.858
22.135	34.842	29.177		7.378		2.148	2.832	22.971
23.315	34.813	29.215	19.467	7.626	2.488	2.065	2.788	24.165

MACH NO = 15.00 CONE ANGLE = 9.00 ANGLE OF ATTACK = 10.00

		P /	P FREE-ST	REAM AT	PLANE	ANGLES		
L/RN	0.	30•	60•	90•	120.	150 •	180.	S/RN
	7. 750		40.054			4 007		05 444
24.582	34.758	29.268	19.251	7-891	2:•479	1.987	2.748	25.448
25.905	34.695	29.335	19.041	8.148	2.0480	1.916	2.688	26.788
27.287	34.643	29.398	18.847	8.379	2-488	1.852	2.632	28.187
28.731	34.610	29.448	18.674	8.574	2.501	1.796	2.570	29.649
30.239	34.599	29.480	18.519	8.730	2.518	1.747 1.704	2.506 2.440	31.175 32.770
31.814	34.607	29.497 29.505	18.377	8.849	2.539	1.667		34.435
33.458 35.175	34.629 34.663	29.508	1:8.245 18.122	8•935 8•994	2.565 2.596	1.636	2.376 2.315	36.173
36.966	34.707	29.510	18.007	9.031	2.630	1.609	2.257	37.986
38.835	34.753	29.511	17-901	9.051	2.667	1.586	2.203	39.878
40.784	34.798	29.515	17.803	9.059	2.704	1.565	2.152	41.852
42.817	34.838	29.524	17.715	9.054	2.742	1.546	2.103	43.910
44.938	34.871	29.539	17.634	9.036	2.779	1.529	2.057	46.057
47.151	34.898	29.560	17.561	9.005	2.816	1.513	2.014	48.299
49,462	34.920	29.586	17.494	8.963	2.851	1.499	1.973	50.638
52.287	34.939	29.619	17.424	8-906	2.889	1.483	1.929	53.499
54.827	34.952	29.649	17.369	8.853	2.919	1-470	1.893	56.070
57.480	34.961	29.678	17. 320	8.800	2.946	1.459	1.860	58.756
60.254	34.969	29.706	17.278	8.747	2.969	1.448	1.828	61.564
63.153	34.974	29.730	17.245	8.694	2.988	1.438	1.799	64.500
66.185	34.977	29.750	17 221	8.640	3.005	1.428	1.772	67.570
69.355	34.979	29.765	17.207	8.587	3.019	1.419	1.745	70.779
72.670	34.978	29.776	17-201	8.534	3.031	1.411	1.721	74.136
76.137	34.975	29.783	17205	8.481	3.042	1.404	1.698	77.645
79.761	34.970	29.785	17.217	8.430	3.052	1-397	1.676	81.315
83.552	34.963	29.784	17.237	8. 380	3.060	1.392	1.655	85.153
87.516	34.955	29.781	17:4263	8.331	3.067	1387	1.636	89.166
91.660	34.945	29.775	17-296	8.285	3.072	1.383	1.619	93.362
95.993	.34.934	29.767	17334	8.240	3.076	1.380	1.602	97.749
100.524	34.922	29.758	17-377	8,198	3.078	1377	1.587	102.336
105.260	34.910	29.748	17:- 423	8.158	3.078	1.375	1.573	107-132
110.211	34.898	29.738	17-471	8.119	3.077	1.373		112-145
115.387	34 • 885	29.727	17:-522	8. 083	3.075	1.371		117.384
120.796	34.874	29.716	17-573	8.048	3.072	1.369		122.861
126.449	34.863	29.705	17-•625	8.015	3.068	1.367		128 • : 5.85
132.357	34.852	29.695	17:- 676	7.• 984	3.4064	1.364		134.566
138.530	34.843	29.684	17:•727	<b>7</b> ₃ 954	3.060	1.362		140.816
144.980	34.834	29.674	17:• 777	7•926	3.055	1.359		147.346
151.718	34.826	29.665	17.826	7 • 899	3.050	1.356		154.168
158.756	34.819	23.655	17:-873	7 - 874	3.044	1.354		161.295
166.108	34.813	29.646	17 918	7.850	3.038	1.351		168.738
173.787	34.808	29.638	17:- 962	7.827	3.033	1.349		176.513
181.806	34.803	29.630	18.003	7.806	3.027	1.347		184.632
190.180	34.800	29.622	18.043	7.786	3.021	1.345		193-110
200.419	34.796	29.614	18.087	7.764	3-014	1.343	1.434	203-477

MACH NO = 20.00 CONF ANGLE = 9.03 ANGLE OF ATTACK = 10.00

		P /	P FREE-S	TPEAM A	T PLANE	ANGLES		
L\SN	9.	30.	60.	90.	120.	150.	180.	S/RN
			_					
.729	97.948	93.656	73.042	53.754	38.976	37.488	27.797	1.297
,890	67.621	62.199	48.965	35.124	24.944	19.262	17.496	1.46:
1.020	67.332	57.948	45.322	32.327	22.938	17.7.7.2	16.182	1.663
1.381	58.410	53.233	41.337	29.484	21.142	16.609	15.220	1.957
1.787	52.467	47.581	36.512	25.932	18.860	15.237	14.177	2.369
2.183	48.079	43.301	32.722	23.036	16,929	14.021	13.245	2.775
?.627	44.911	3.0 8.36	29.395	20.485	15.195	12.381	12.457	3.220
3.178	42.643	37.248	26.688	18.154	13.362	11.715	11.505	3.769
3.647	41.732	35.964	25.036	16.576	12.098	10.683	10.627	4.252
4.124	41.744	35.356		15.359	11.074	9.836	9.836	4.735
4.674	42.460	35.310		14.300	10.102	9.068	9.120	5.292
5.17 <del>6</del>		35.698		13.602	9.431	8.527		5.759
5.595	44.798	36.359		13.058	8.893	8.053	8.232	6.214
6.893	46.229	37.327		12.577		7.571	7.789	6.728
F.513	47.7×0	38.22A		12.259	8.053	7.218	7.436	7.154
5.920	49.248	39.163		12.003	7.756	6.917	7-116	7.566
7.377	51.164	40.323	22.338	11.755	7.454	6.624	6.793	8.729
7.755	52.892	41.439		11.582	7.227	6.413	6.552	8.413
۹.124	54.509	42.590	22.766	11.437	7.026	6232	6.370	8.785
8.542	5 <b>6.</b> 509	44.070	23.070	11.295	6.824	6.049	6.187	9.208
a.392	57.969	45.393		11.192	6.673	5.910	6.056	9.562
9 • 237	×c.238	46.731		11.106	6.538	5.783	5.943	9.912
3.636	60.476	48.263	24.844	11.022	6.397	5.645	5.824	10.316
9.977	61.312	49.516	24.396	10.964	6.284	5.535	5730	10.661
13.325	51.942	58.685	24.77.4	10.915	6.177	5.430	5.639	11.208
13.724	62.426	51.912	25.252	10.866	6.055	5.312	5.533	11.417
11.076	62.647	52.829		16.830	5.950	5.215	5.444	11.774
11.436	62.721	53.502	26.190	16.800	5.845	5.122	5.355	12.138
11.876	62.669	54.382		10.769	5.720	5.317	5.253	12.578
12.257	62.503	54.713		12.747	5.612	4.930	5.176	12.978
12.661	62.275	54.945		10.727		4.847	5.092	13.379 13.882
13.158	61.913			10.707		4.753	5.012 4.955	14.335
13.606	61.579	54.876		10.693	5.257 5.140	4.676 4.601	4.910	14.808
14.073	51.262	54.595			5.001	4.513	4.874	15.391
14.649	60.987			18.678	4.878	4.435	4.854	15.923
15.174	68.858	53.536	32.503	10.682	4.753	4.351	4.840	16.490
15.734	50.828	52.937	_	10.738	4.605	4.243	4:•-826	17.203
16.438	60.876	52.181 51.639		10.799	4.479	4.139	4.810	17.866
17.893 17.802	60.950 51.054	51.215	34.377	10.893	4.358	4-13-	4.784	18.583
13.679	51.147	50.906	34.618	11.953	4.228	3.881	4.739	19.471
19.476	61.194	50.781		11.355	4.128	3.752	4.688	20.279
29.326	61,221	50.759		11.487	4.040	3.619	4:.629	21.139
21.399	51.231	50.815		11.856	3.957	3.461	4.553	22.225
22.405	51.194	50.907		12.244	3.905	3.324	4.486	23.244
C C B 7 5 7	01477	24 709		A-1-17	0.707	2.4	, . ,	• •

MACH NO = 20.00 CONE ANGLE = 9.00 ANGLE OF ATTACK = 10.00

		F /	P FREE-ST	TREAM AT	PLANE	ANGLES		
F\8k	0.	36.	60.	90•	120.	150.	180.	SIRN
23.5PA	61.088	51.050	33.446	12.694	3.873	3.188	4.415	24.361
24.724	60.936	51.183	32.990	13.182	3.860	3.056	4.339	25.592
25.233	50.784	51.375	32.515	13.728	3.861	2.917	4.239	27.119
27.587	50.695	51.591	32.169	14.134	3.870	2.811	4.140	28.493
23.000	5 <u>0.655</u>	51.582	31.872	14.469	3.884	2.716	4.031	29.921
33.727	60.659	51.621	31.566	14.766	3.908	2.620	3.895	31.678
32.278	60.696	51.626	31.329	14.944	3.937	2.548	3.777	33.240
33.894	58.764	51.620	31.198	15.061	3.973	2.486	3.662	34.876
75.866	60 <b>.</b> :868	51.636	30.870	15.139	4.021	2.424	3.535	36.873
37.633	60.952	51.593	30.684	15.172	4.068	2.379	3.433	38.661
79.477	61.047	51.584	30,515	15.180	4.118	2.339	3.338	40.525
41.717	61.129	51.591	30.343	15.157	4.182	2.297	3.233	42.797
43.728	61.183	51.613	30.211	15.107	4.241	2.265	3.148	44.932
45.823	61:-225	51.649	30.094	15.028	4.302	2.235	3.067	46.954
49.382	51.251	51.702	29.971	14.910	4.372	2.204	2.978	49.544
50.677	F1.281	51.755	29.874	14.798	4.429	2 • 1-79	2.907	51.368
57.072	61.297	51.819	29.784	1-4687	4.480	2.155	2.841	54.294
56.000	51.311	51.874	29.689	14.562	4.533	2.129	2.769	<b>57.</b> 258
59.630	61.322	51.926	29.620	14.458	4.572	2.107	2712	5 <b>9.</b> 920
61.376	51.332	51.971	29.565	14.355	4.605	2.086	2.658	62.731
64.734	61.342	52.014	29.519	14.236	4.636	2.062	2.598	66.191
67.752	61.347	52.041	29.497	14.135	4.658	2.041	2.550	69.156
79.993	61.349	52.060	29.491	14.035	4.677	2.021	2.503	72.347
74,758	61.346	52.073	29.503	13.922	4.696	1.999	2.452	76.249
79.221	64-339	52.G76	29.529	13.827	4.711	1.981	2.409	79.755
81.838	61.328	52.074	29.568	13.735	4.724	1.965	2.369	83.418
96.261	61.311	52.064	29.630	13.633	4.737	1.348	2.326	87.496
99.235	61.293	52.053	29.695	13.550	4.743	1.936	2.291	91.919
34.385	61-274	52.038	29.769	13.471	4.744	1.925	2.259	96.121
99.459	51.249	52.619	29.866	13.384	4.740	1.913	2.225	101.258
104.016	61.223	52.091	29.954	13.313	4.733	1.904	2.198	105.873
109.775	51.216	51.983	30.047	13.245	4.725	1.896		110.591
114.592	51.182	51.951	30.158	13.171	4.715	1.888		116.588
119.816	F1.162	51.942	38.254	13.111	4.706	1.881	2.121	
125.269	61.144	51,923	30.351	13.055	4.695	1.875		127.396
131.932	61.124	51.902	30.462	12.993	4.681	1.867	2.075	134.136
137.913	51-108	51.884	30.555	12,943	4.658	1.861		140.192
144.155	61.094	51.866	30.646	12.897	4.656	1.855		146.511
151.780	61.379	51.846	30.749	12.846	4.640	1.848		154.231
158.622	61368	51,830	36.834	12.805	4.627	1.842	1.998	161.159
165.760	51.958	51.814	30.916	12.767	4.613	1.837	1:• 982	
174.477	51.349	51.795	31.007	12.725	4.597	1.830	1.964	177.212
182.298	61.142	51.782	31.082	12.692	4.584	1.825		185.130
193.455	61.036	51.768	31.153	12.661	4.571	1.820		193.388
200.414	61 · 030	51.752	31.231	12.627	4.556	1.814	1.920	203.471

## NSHC/HOL/TR 75-45

	S/RN 297 461
L/RN 0. 30. 60. 90. 120. 150. 180.	297
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13.072 96.176 85.678 44.121 16.144 8.082 7.145 7.513 13	795
13.567 95.503 85.430 45.448 16.108 7.885 7.013 7.415 14	296
	744
14.554 94.554 84.111 48.013 16.058 7.508 6.774 7.295 15	295
15.050 94.364 83.176 49.188 16.047 7.326 6.659 7.264 15	797
15.668 94.329 81.958 50.499 16.052 7.107 6.514 7.238 16	423
16.237 94.421 80.934 51.527 16.080 6.916 6.376 7.217 16	999
	728
	400
	223
	966
	890
	742
21.988 95.133 78.763 52.451 18.133 5.744 4.962 6.682 22	822

MACH NO = $25.00$ CONE ANGLE = $9.00$	ANGLE OF ATTACK = 10.00
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		P /	P FREE-S	TREAM AT	PLANE	ANGLES		
L/RN	0 •	30.	60.	90.	120.	150.	180.	SZRN
22.992	94.977	78.978	51.753	18.786	5.683	4 • 7-6-1	6.586	23.838
24.290	94.649	79.286	50888	19.644	5.646	4.532	6.467	25.153
25.527	94 • 436	79.571	50.181	20.405	5.637	4.342	6.348	26.404
27-053	94.237	79.857	49.495	21.206	5.646	4.142	6.183	27.949
28.422	94.152	80.003	49.006	21.773	5. 662	3.990	6.019	29.336
30.095	94.143	80.077	48.519	22.289	5.690	3.833	5.807	31.030
31.596	94.197	80.078	48.145	22.602	5.723	3.715	5.618	32.549
33.427	94.328	80.052	47.742	22.836	5.772	3.597	5.403	34.403
35.067	94.480	80.019	47.423	22.950	5.822	3.510	5.223	36.064
37.066	94.663	79.977	47086	23.014	5.889	3.422	5.038	38.4088
38 • 855	94.801	79.952	46.827	23.025	5.954	3.356	4.886	39.549
41.035	94.970	79.952	46.562	22.982	6.039	3.288	4.718	42.106
42.987	95.013	79.981	46.365	22.889	6.120	3.236	4.582	44.083
45.368	95.083	80.045	46,166	22.718	6.219	3.181	4.432	46.493
47.501	95•121	80.118	46.014	22.533	6.304	3.138	4.310	48.653
49.725	95.145	80.201	45•871	22.338	6.386	3.098	4.196	50.904
52.441	95.167	80.305	45.714	22.119	6.475	3.054	4.073	53.654
94.878	95.183	80.394	45.592	21.941	6.543	3.018	3.976	56.122
5"•856	95.202	80.491	45.471	21.741	6.611	2.976	3.871	59 • 137
60.530	95 • 21 9	80.563	45.388	21.571	6.660	2 • 942	3.787	61.844
63.798	95•236	80.631	45.318	21.378	6.705	2.901	3.695	65.153
66.733	95.247	80.674	45.285	21.215	6.737	2.867	3.619	68.125
7-0 - 320	95.254	80.709	45•-276	21.029	6.768	2.828	3.534	71.756
73.541	95 • 253	80.726	45.294	20.873	6.792	2.796	3.464	75.017
77-6477	95.242	80.732	45.342	20.698	6.820	2.761	3.4387	79.002
81:4-011	95.226	80.727	45 • 406	20.555	6.839	2.733	3.324	82.581
85-331	95.200	80.712	45.507	20.396	6.854	2.7.04	3.255	86.354
89.209	95.172	80.693	45.612	20.266	6.856	2.681	3.201	90.881
93. 948	95.136	80.667	45.754	20.122	6.848	2.657	3.143	95.679
98.203	95.103	80.641	45•889	20.005	6.837	2.639	3.097	99.987
103.402	95.064	80.609	46.056	19.876	6.821	2.619	3.046	1.05.250
108.068	95.030	80.580	4E.205	19.771	6-836	2.603		109.974
113.768	94.993	80.546	<b>45</b> •384	19,656	6.787	2.587	2.961	115.746
118.884	94.963	80.517	46.538	19.563	6.768	2.573	2.924	120-925
125-132	94.930	80.483	46.718	19.463	6.743	2.558	2.883	127.251
130.738	94.904	80.454	46-870	19.382	6.720	2.546	2.850	132-927
137.583	94.877	80.421	47.044	19.294	6,694	2.533	2.812	139.857
143.722	94.856		47.189	19.224	6.670	2.521	2.780	146-074
151-218	94.834	80.363	47 <u>•</u> -352	19.149	6.642	2.508	2.745	153.663
157.940	94.817	80.337	47•487	19.088	6.618	2.497	2.716	160.469
166.145	94.800	80.308	47 • 637	19.023	6.589	2.484	2.684	168.775
173.501	94.787	80-284	47.761	18.970	6.566	2.473	2.657	176.224
182-479	94•775	80+257	47-•898	18.914	6.539	2.450	2.626	185.313
190. 527	94 • 767	80.235	48 <b>.</b> ₌0.1-0	18.870	6.517	2.449	2.601	193.461
200.347	94.759	80.210	48.134	18.822	6.492	2.435	2.573	203.404

MACH NO = 30.00 CONE ANGLE = 9.00 ANGLE OF ATTACK = 10.00

L/RN			P /	P FREE-S	STREAM A	AT PLANE	ANGLES		
1.133   139.492   138.595   109.135   76.170   55.425   42.750   38.811   1.461	L/RN	0.						180-	S/RN
1.133   139.492   138.595   109.135   76.170   55.425   42.750   38.811   1.461	•730	218.573	202,236	162.795	119.636	86.621	67.691	61 - 681	1.298
1.431 128.141 116.663 99.529 70.884 50.277 38.957 35.480 1.707 1.431 128.141 116.663 90.379 64.383 46.221 36.412 33.413 2.009 1.845 114.640 104.010 79.587 66.396 41.033 33.254 31.003 2.428 2.250 105.320 94.505 71.118 49.976 36.793 30.587 28.947 2.838 3.705 97.584 86.205 63.073 43.647 2.310 27.849 26.888 3.360 3.308 93.271 81.031 57.424 38.758 28.435 24.999 24.673 3.909 34.327 92.300 77.434 51.273 32.584 23.320 20.810 20.851 4.940 4.327 92.300 77.434 48.676 29.040 19.981 18.117 18.452 5.935 5.814 100.235 80.721 48.140 27.789 18.739 16.963 17.426 6.446 6.698 116.359 44.833 48.051 26.207 17.058 15.263 15.731 7.426 6.466 6.698 116.359 48.834 48.656 26.986 17.887 16.409 16.606 6.868 6.698 116.359 48.657 12.327 99.5110 49.063 22.678 16.445 14.658 15.071 7.732 7.516 114.845 89.476 48.646 25.171 15.820 14.066 14.418 8.169 7.873 118.772 91.950 49.063 24.481 13.3208 13.510 8.939 8.667 127.337 98.493 50.266 24.168 14.477 12.834 13.146 9.335 8.995 130.466 101.485 50.856 23.956 14.474 12.854 12.879 9.666 9.371 133.588 104.978 51.594 23.750 13.659 12.235 12.603 10.047 9.601 135.782 107.892 52.272 23.602 13.612 11.988 12.385 10.371 10.062 137.767 111.114 53.124 23.455 13.360 11.716 12.144 10.747 10.434 139.146 114.072 54.054 23.328 13.603 13.503 13.503 13.5.781 13.503 88.995 130.466 101.485 50.856 23.956 14.174 12.545 12.879 9.666 9.371 133.588 104.978 55.272 23.602 13.612 11.988 12.385 10.371 10.052 137.767 111.114 53.124 23.455 13.300 11.716 12.144 10.747 10.434 139.146 114.072 54.054 23.328 13.603 13.612 11.988 12.385 10.371 10.052 137.767 111.114 53.124 23.455 12.389 11.011 11.480 11.837 12.505 13.505 13.505 12.805 12.805 12.805 13.506 13.505 12.805 13.506 12.305 66.800 22.677 10.819 9.691 10.221 10.702 13.394 13.552 13.602 13.502 13									
1.431 128.141 116.663 90.379 64.383 46.221 36.412 33.413 2.009 1.845 114.840 104.010 79.587 56.396 41.033 33.254 31.003 2.428 2.250 105.320 94.505 71.118 49.976 36.793 30.587 28.947 2.838 2.755 97.584 86.205 63.073 43.647 32.310 27.849 26.888 3.360 3.388 93.271 81.031 57.424 38.758 28.435 24.999 24.673 3.909 3.780 91.662 78.557 54.005 35.452 25.798 22.813 22.739 4.386 4.327 92.300 77.434 51.273 32.584 23.320 20.810 20.851 4.940 5.309 96.944 78.844 48.676 29.040 19.981 18.117 18.452 5.935 6.230 103.160 82.571 47.986 26.968 17.887 16.963 17.426 6.446 6.230 103.160 82.571 47.986 25.9678 16.495 11.5666 6.868 6.638 116.359 44.843 48.651 26.968 17.887 16.109 16.066 6.868 6.638 116.359 44.843 48.651 26.968 17.887 16.109 16.066 6.868 7.876 127.337 98.493 50.266 24.812 15.353 13.638 13.955 8.531 8.276 123.229 99.5110 49.631 24.461 14.881 13.208 13.500 3.500 38.667 127.337 98.493 50.266 24.168 14.477 12.834 13.146 9.335 8.995 130.466 101.485 50.866 23.356 14.174 12.545 12.879 9.656 9.371 133.588 104.978 51.594 23.360 13.638 13.955 8.531 10.047 9.601 133.588 104.978 51.594 23.360 13.638 12.235 12.803 10.047 9.601 135.782 107.892 52.272 23.602 13.612 11.988 12.385 10.371 10.052 137.767 111.114 53.124 23.352 12.554 11.247 11.716 11.480 11.33.588 11.355 50.856 23.356 13.340 11.716 12.140 11.497 12.834 13.9146 114.072 54.054 23.323 12.854 11.247 11.740 11.450 11.451 13.555 12.603 10.047 11.535 12.603 10.047 11.535 12.265 12.603 10.047 11.535 12.265 12.603 10.371 11.576 13.589 12.355 12.603 10.371 11.576 13.595 12.603 12.355 12.503 10.351 12.950 11.355 12.603 10.371 11.595 12.357 73.848 12.255 12.503 10.322 14.791 11.555 12.603 10.425 12.555 12.603 10.425 12.555 12.603 10.425 12.555 12.603 10.425 12.555 12.503 13.556 12.355 12.556 12.557 13.358 10.357 11.048 12.555 12.553 12.559 12.550									
1.845       114.840       104.010       79.587       56.396       41.033       33.254       31.003       2.428         2.765       97.584       86.205       63.073       43.647       32.310       27.849       26.888       3.360         3.780       91.862       78.557       54.005       35.452       25.798       22.813       22.739       4.386         4.327       92.300       77.434       51.273       32.584       23.320       20.810       20.851       4.940         4.787       94.013       77.630       49.758       30.720       21.591       19.453       19.615       5.406         5.309       96.944       78.844       48.676       29.040       19.981       18.117       18.452       5.935         5.814       100.235       80.721       48.140       27.789       18.739       16.963       17.426       6.446         6.698       106.859       44.8263       25.678       16.445       14.658       15.071       7.732         7.516       114.848       89.476       48.263       24.812       15.353       13.638       15.071       7.732         7.871       13.3588       104.997       50.266       24.168<									
2.250 105.320 94.505 71.118 49.976 36.793 30.587 28.947 2.838 2.765 97.584 86.205 63.073 43.667 32.310 27.849 26.888 3.360 3.3780 91.862 78.557 54.005 35.452 28.798 22.813 22.739 4.386 4.327 92.300 77.434 51.273 32.584 23.320 20.810 20.851 4.940 4.787 94.013 77.630 49.758 30.720 21.591 19.453 19.615 5.406 5.309 96.944 78.844 48.676 29.040 19.981 18.117 18.452 5.935 5.814 100.235 80.721 48.140 27.789 18.739 16.963 17.426 6.230 103.160 82.571 47.986 26.968 17.887 16.109 16.606 6.868 6.698 106.859 44.8263 25.678 16.445 14.658 15.071 7.341 7.084 110.338 86.874 48.263 25.678 16.445 14.658 15.071 7.732 7.516 114.845 89.476 48.645 25.171 15.820 14.066 14.418 8.169 7.873 118.772 91.950 49.063 24.461 14.881 13.208 13.955 8.531 8.276 123.229 95.110 49.631 24.461 14.881 13.208 13.146 99.335 8.995 130.466 101.485 50.856 23.956 14.174 12.545 12.879 9.666 9.371 133.588 104.978 51.594 23.750 13.861 11.988 12.385 10.371 10.062 137.767 111.114 53.124 23.455 13.360 11.716 12.144 10.747 10.434 139.146 114.972 54.054 23.322 12.854 11.247 10.743 139.146 114.972 54.054 23.322 12.854 11.247 11.440 314 120.300 57.095 23.055 12.360 10.816 11.281 11.716 12.144 10.747 10.434 139.146 114.972 54.054 23.322 12.854 11.247 11.716 12.144 10.747 10.434 139.146 114.972 54.054 23.322 12.854 11.247 11.740 11.450 11.837 11.474 140.314 120.300 57.095 23.055 12.368 10.816 11.287 12.77 11.878 140.041 121.770 58.455 22.975 12.103 10.597 11.068 12.586 12.238 13.573 122.625 59.743 22.912 11.874 10.418 10.891 12.950 12.677 138.780 123.144 61.395 22.843 11.605 10.218 10.702 13.394 13.558 10.780 68.800 22.677 10.819 9.691 10.322 14.791 14.551 135.558 122.788 68.500 22.779 11.332 10.026 10.539 13.863 12.558 12.567 135.574 119.128 70.480 22.677 10.819 9.691 10.322 14.791 14.551 135.558 122.788 68.500 22.779 11.332 10.026 10.539 13.663 12.586 12.236 135.574 119.128 70.480 22.677 10.819 9.691 10.322 14.791 14.551 135.558 122.685 70.880 22.779 11.332 10.026 10.539 13.663 13.576 114.337 76.237 76.822 28.943 10.597 9.585 10.083 17.707 17.578 135.044 11.3347 76.212								-	
2.765 97.584 86.205 63.073 43.647 32.310 27.849 26.888 3.360 3.388 93.271 81.031 57.424 38.758 28.435 24.999 24.673 3.999 3.780 91.862 78.557 54.005 35.452 25.798 22.813 22.739 4.386 4.327 92.300 77.434 51.273 32.584 23.320 20.810 20.851 4.940 4.787 94.013 77.630 49.758 30.720 21.591 19.453 19.615 5.406 5.309 96.944 78.844 48.676 29.040 19.981 18.117 18.452 5.935 5.814 100.235 80.721 48.140 27.789 18.739 16.963 17.426 6.446 6.230 103.160 82.571 48.840 26.968 17.887 16.109 16.606 6.868 6.698 106.859 44.833 48.051 26.207 17.058 15.263 15.731 7.341 7.084 110.388 86.874 48.263 25.678 16.445 14.658 15.273 7.341 7.516 114.845 89.476 48.645 25.171 15.820 14.066 14.418 8.169 7.873 118.772 91.950 49.063 24.812 15.353 13.638 13.955 8.531 8.276 123.329 95.110 49.631 24.461 14.881 13.208 13.510 8.939 8.667 127.337 98.493 50.266 24.168 14.477 12.834 13.146 9.335 8.995 130.466 101.485 50.856 23.956 14.174 12.545 12.879 9.666 9.371 133.5588 104.978 51.594 23.455 13.340 11.716 12.144 10.747 10.434 139.146 114.972 54.054 23.322 12.854 11.247 11.740 11.450 11.139 140.285 118.660 54.924 23.232 12.854 11.247 11.740 11.450 11.139 140.285 118.660 54.924 23.232 12.854 11.247 11.740 11.450 11.474 140.314 120.300 57.095 23.055 12.368 10.816 11.287 12.951 11.878 140.041 121.770 58.455 22.972 12.103 10.597 11.068 12.586 12.238 139.573 122.625 59.743 22.912 11.874 10.418 10.891 12.956 12.238 139.573 122.625 59.743 22.912 11.874 10.418 10.891 12.956 13.139 137.791 123.157 63.200 22.779 11.332 10.026 10.539 13.863 13.552 136.928 122.788 64.833 22.729 11.098 9.870 10.425 14.281 14.055 135.065 121.905 66.800 22.677 10.819 9.691 10.322 14.791 15.673 135.274 11.9128 70.480 22.607 10.277 9.350 10.207 15.821 15.673 135.527 117.312 72.367 22.600 9.970 9.145 10.106 12.586 15.234 135.446 11.33.47 76.912 22.834 9.133 8.665 10.083 17.707 17.578 136.041 113.347 76.912 22.834 9.133 8.665 10.013 17.707 17.578 136.041 112.377 76.939 23.378 8.585 7.990 9.799 19.859 19.933 136.591 112.350 76.679 23.880 8.340 7.558 9.692 10.137 19.969									
3.308         93.271         81.031         57.424         38.758         28.435         24.999         24.673         3.909           3.780         91.862         78.557         54.005         35.452         28.798         22.813         22.739         4.386           4.327         92.303         77.630         49.758         30.720         21.591         19.453         19.615         5.406           5.814         100.235         80.721         48.140         27.789         18.733         18.117         18.452         5.935           5.814         100.235         80.721         48.140         27.789         18.733         16.961         17.426         6.446           6.230         103.160         82.571         47.986         26.968         17.887         16.109         16.606         6.868           6.698         106.859         44.833         48.051         25.271         15.820         14.066         14.418         8.169           7.516         114.845         89.476         48.645         25.171         15.820         14.066         14.418         8.169           7.873         188.772         91.950         49.063         24.812         15.353         13.638 <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td>						-			
3.780         91.862         78.557         54.005         35.452         25.798         22.813         22.739         4.386           4.787         94.013         77.634         51.273         30.720         21.591         19.453         19.615         5.406           5.309         96.944         78.844         48.676         29.040         19.981         18.117         18.452         5.935           5.814         100.235         80.721         48.140         27.789         18.739         16.963         17.266         6.446           6.698         106.859         44.833         48.051         26.207         17.058         15.263         15.731         7.341           7.516         114.845         89.476         48.645         25.171         15.820         14.066         14.418         8.169           7.873         18.772         91.950         49.631         24.461         14.881         13.208         13.520         8.931           8.667         127.337         98.493         50.266         23.956         14.174         12.834         13.540         8.939           8.667         127.337         98.493         50.266         23.956         14.174         12.2834 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
4.327         92.300         77.434         51.273         32.584         23.320         20.851         20.851         4.940           5.309         96.944         78.844         48.676         29.040         19.981         18.117         18.452         5.935           5.814         100.235         80.721         48.140         27.789         18.739         16.963         17.426         6.446           6.230         103.160         82.571         47.986         26.968         17.887         16.109         16.606         6.868           6.698         106.899         44.833         48.051         25.207         17.058         15.263         15.731         7.341           7.084         110.388         86.874         48.263         25.678         16.445         14.066         14.418         8.169           7.873         118.772         91.950         49.631         24.812         15.353         13.638         13.955         8.531           8.276         123.229         95.110         49.631         24.461         14.881         13.208         13.510         8.935           8.995         130.446         101.485         50.856         23.750         13.659         12.287 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
4.787       94.013       777.630       49.758       30.720       21.591       19.453       19.615       5.406         5.814       100.235       80.721       48.676       29.040       19.981       18.117       18.452       5.935         6.230       103.160       82.571       47.986       26.968       17.887       16.109       16.606       6.868         6.698       106.859       44.833       48.051       26.207       17.058       15.263       15.731       7.341         7.084       110.388       86.874       48.263       25.678       16.445       14.658       15.071       7.732         7.516       114.845       89.476       48.645       25.171       15.820       14.066       14.418       8.169         7.873       118.772       91.950       49.631       24.461       14.881       13.208       13.510       8.935         8.667       127.337       98.493       50.266       24.168       14.477       12.834       13.146       9.335         8.995       130.466       101.485       50.856       23.956       14.174       12.545       12.879       9.666         9.371       133.588       104.978       51.									
5.309       96.944       78.844       48.676       29.040       19.981       18.117       18.452       5.935         5.814       100.235       80.721       48.140       27.789       18.739       16.963       17.426       6.446         6.698       106.859       4.833       48.051       26.207       17.058       15.263       15.731       7.341         7.084       110.388       86.874       48.635       25.678       16.445       14.658       15.071       7.732         7.516       114.845       89.476       48.645       25.171       15.820       14.066       16.448       8.169         7.873       118.772       91.950       49.631       24.461       14.881       13.208       13.510       8.939         8.667       127.337       98.493       50.266       24.168       14.477       12.834       13.146       9.335         8.995       130.466       101.485       50.856       23.956       14.174       12.834       13.46       9.335         8.995       130.860       116.350       54.924       23.232       13.612       11.988       12.385       10.371         10.434       139.486       114.072       54.									
5.814       100.235       80.721       48.140       27.789       18.739       16.963       17.426       6.446         6.230       103.160       82.571       47.986       26.968       17.087       16.109       16.606       6.868         6.698       110.859       44.833       48.051       25.678       16.445       15.263       15.731       7.341         7.084       110.388       86.874       48.263       25.678       16.445       16.568       15.731       7.772         7.516       114.845       89.476       48.645       25.171       15.820       14.066       14.418       8.169         8.276       123.229       95.110       49.631       24.461       14.881       13.208       13.510       8.939         8.667       127.337       98.493       50.266       24.168       14.477       12.834       13.146       9.335         8.995       130.466       101.485       50.856       23.956       14.174       12.545       12.879       9.666         9.371       13.3588       10.477       11.414       53.124       23.455       13.340       11.716       12.184       10.371         10.459       13.934       140									
6.230 103.160 82.571 47.986 26.968 17.887 16.109 16.606 6.868 6.698 106.859 44.833 48.051 26.207 17.058 15.263 15.731 7.341 7.0084 110.388 86.874 48.263 25.678 16.445 14.658 15.071 7.732 7.516 114.845 89.476 48.645 25.171 15.820 14.066 14.418 8.169 7.873 118.772 91.950 49.063 24.812 15.353 13.638 13.955 8.531 8.276 123.229 95.110 49.631 24.461 14.881 13.208 13.510 8.939 8.667 127.337 98.493 50.266 24.168 14.477 12.834 13.146 9.335 8.995 130.466 101.485 50.856 23.956 14.174 12.545 12.879 9.666 9.371 133.588 104.978 51.594 23.750 133.859 12.235 12.603 10.047 9.690 135.782 107.892 52.272 23.602 13.612 11.988 12.385 10.374 10.062 137.767 111.114 53.124 23.455 13.340 11.716 12.144 10.747 10.434 139.146 114.072 54.054 23.328 13.077 11.459 11.909 11.124 10.756 139.880 116.350 54.924 23.328 13.077 11.459 11.909 11.124 11.471 11.4878 140.041 121.770 58.455 22.975 12.103 10.597 11.068 12.586 12.238 139.573 122.625 59.743 22.912 11.874 10.418 10.891 12.950 12.677 138.780 123.146 61.395 63.200 22.779 11.332 10.026 10.539 13.863 13.552 136.065 121.905 66.800 22.779 11.332 10.026 10.539 13.863 13.552 136.928 122.788 64.833 22.729 11.098 9.870 10.425 14.281 14.056 136.065 121.905 66.800 22.677 10.819 9.691 10.322 14.791 14.511 135.558 120.780 66.800 22.677 10.819 9.691 10.322 14.791 14.511 135.558 120.780 66.800 22.677 10.819 9.691 10.322 14.791 14.511 135.558 120.780 66.800 22.677 10.819 9.691 10.322 14.791 14.511 135.558 120.780 66.800 22.677 10.819 9.691 10.322 14.791 14.511 135.558 120.780 66.800 22.607 10.277 9.350 10.207 15.821 15.678 135.274 119.128 70.480 22.607 10.277 9.350 10.207 15.821 15.678 135.274 119.128 70.480 22.607 10.277 9.350 10.207 15.821 15.673 135.044 113.347 76.215 22.834 9.113 8.456 10.016 18.356 16.935 135.760 114.333 75.042 27.04 9.380 8.695 10.137 16.996 10.927 15.821 19.933 136.691 112.350 76.679 23.880 8.895 7.900 9.799 9.909									
6.698 106.859									
7.084 110.388 86.874 48.263 25.678 16.445 14.658 15.071 7.732 7.516 114.845 89.476 48.645 25.171 15.820 14.066 14.418 8.169 7.873 118.772 91.950 49.063 24.812 15.353 13.638 13.955 8.531 8.276 123.229 95.110 49.631 24.461 14.881 13.208 13.510 8.339 8.667 127.337 98.493 50.266 24.168 14.477 12.834 13.146 9.335 8.995 130.466 101.485 50.856 23.956 14.174 12.545 12.879 9.666 9.371 133.588 104.978 51.594 23.750 13.859 12.235 12.603 10.047 9.690 135.782 107.892 52.272 23.602 13.612 11.988 12.385 10.371 10.062 137.767 111.114 53.124 23.455 13.340 11.716 12.144 10.747 10.434 139.146 114.072 54.054 23.328 13.077 11.459 11.999 11.124 10.756 139.880 116.350 54.924 23.232 12.854 11.276 11.919 11.124 11.139 140.285 118.660 56.040 23.132 12.593 11.011 11.480 11.837 11.474 140.314 120.300 57.095 23.055 12.368 10.816 11.287 12.177 11.878 140.041 121.770 58.455 22.975 12.103 10.597 11.688 12.586 12.238 139.573 122.625 59.743 22.912 11.874 10.418 10.891 12.950 12.677 138.780 123.144 61.395 22.843 11.605 10.218 10.702 13.394 13.139 137.791 123.157 63.200 22.779 11.332 10.026 10.539 13.863 13.552 136.928 122.788 64.833 22.729 11.098 9.870 10.425 14.281 14.056 136.065 121.905 66.800 22.677 10.819 9.691 10.322 14.791 14.511 135.558 120.783 68.508 22.627 10.577 9.538 10.259 15.251 15.073 135.274 119.128 70.480 22.607 10.277 9.350 10.207 15.821 15.678 135.478 115.815 73.848 22.623 9.699 8.950 10.137 16.433 16.234 135.478 115.815 73.848 22.623 9.699 8.950 10.137 16.433 16.234 135.478 115.815 73.848 22.623 9.699 8.950 10.137 16.433 16.935 136.461 112.377 76.939 23.378 8.585 7.990 9.799 19.146 19.062 136.461 112.377 76.939 23.880 8.340 7.584 9.553 20.742 20.874 136.671 11 15.33 76.022 24.561 8.135 7.259 9.502 21.694						-		-	
7.516 114.845 89.476 48.645 25.171 15.820 14.066 14.418 8.169 7.873 118.772 91.950 49.063 24.812 15.353 13.638 13.955 8.531 8.276 123.229 95.110 49.631 24.461 14.881 13.208 13.510 8.939 8.667 127.337 98.493 50.266 24.168 14.477 12.834 13.146 9.335 8.995 130.466 101.485 50.856 23.956 14.174 12.545 12.879 9.666 9.371 133.588 104.978 51.594 23.750 13.859 12.235 12.603 10.047 9.690 135.782 107.892 52.272 23.602 13.612 11.988 12.385 10.371 10.062 137.767 111.114 53.124 23.455 13.340 11.716 12.144 10.747 10.434 139.146 114.972 54.054 23.328 13.077 11.459 11.909 11.124 10.756 139.880 116.350 54.924 23.232 12.854 11.247 11.710 11.450 11.139 140.285 118.660 56.040 23.132 12.593 11.011 11.480 11.837 11.474 140.314 120.300 57.095 23.055 12.368 10.816 11.287 12.177 11.878 140.041 121.770 58.455 22.975 12.103 10.597 11.068 12.586 12.238 139.573 122.625 59.743 22.912 11.874 10.418 10.891 12.950 12.677 138.780 123.144 61.395 22.843 11.605 10.218 10.702 13.394 13.139 137.791 123.457 63.200 22.779 11.332 10.026 10.539 13.863 13.552 136.928 122.788 64.833 22.729 11.098 9.870 10.425 14.281 14.511 135.558 120.780 68.508 22.639 10.574 9.538 10.259 15.251 15.073 135.274 119.128 70.480 22.607 10.277 9.350 10.207 15.821 15.678 135.770 11.5815 73.848 22.623 9.699 9.890 10.137 16.433 16.234 135.478 115.815 73.848 22.623 9.699 9.691 10.322 14.791 14.511 135.558 120.780 68.508 22.639 10.574 9.538 10.259 15.251 15.073 135.274 119.128 70.480 22.607 10.277 9.350 10.207 15.821 15.678 135.770 11.5815 73.848 22.623 9.699 9.990 9.145 10.170 16.433 16.234 135.478 115.815 73.848 22.623 9.699 8.950 10.137 16.433 16.234 135.478 115.815 73.848 22.623 9.699 8.950 10.137 16.433 16.234 135.478 115.815 73.848 22.623 9.699 9.970 9.145 10.170 16.433 16.234 135.478 115.815 73.848 22.623 9.699 9.970 9.145 10.170 16.433 16.234 135.478 115.815 73.848 22.623 9.699 9.970 9.145 10.170 16.433 16.234 135.478 115.815 73.848 22.623 9.699 9.900 19.137 16.996 19.933 136.691 112.350 76.679 23.378 8.585 7.900 9.799 19.859	7.084	110.388							
7.873       118.772       91.950       49.063       24.812       15.353       13.638       13.955       8.531         8.276       123.229       95.110       49.631       24.461       14.881       13.208       13.510       8.939         8.667       127.337       98.493       50.266       24.168       14.477       12.834       13.146       9.335         8.995       130.466       101.485       50.856       23.956       14.174       12.545       12.879       9.666         9.371       133.588       104.978       51.594       23.750       13.859       12.235       12.603       10.047         9.690       135.782       107.892       52.272       23.602       13.612       11.988       12.385       10.371         10.062       137.767       111.114       53.124       23.455       13.340       11.7716       11.470       11.241         10.756       139.880       116.350       54.924       23.232       12.854       11.247       11.710       11.480       11.837         11.474       140.314       120.300       57.095       23.055       12.368       10.816       11.287       12.177       11.878       140.041       121.770<	7.516	114.845						-	
8.276       123.229       95.110       49.631       24.461       14.881       13.208       13.510       8.939         8.667       127.337       98.493       50.266       24.168       14.477       12.834       13.146       9.335         8.995       130.466       101.485       50.856       23.956       14.174       12.545       12.879       9.666         9.371       133.588       104.978       51.594       23.750       13.859       12.235       12.603       10.047         9.690       135.782       107.892       52.272       23.602       13.612       11.988       12.385       10.371         10.062       137.767       111.114       53.124       23.455       13.340       11.716       12.144       10.747         10.434       139.146       114.072       54.054       23.328       13.077       11.459       11.909       11.124         11.139       140.285       118.660       56.040       23.132       12.854       11.247       11.450       11.450         11.474       140.314       120.300       57.035       23.055       12.368       10.816       11.287       12.177         11.878       140.041       121.770 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
8.667 127.337 98.493 50.266 24.168 14.477 12.834 13.146 9.335 8.995 130.466 101.485 50.856 23.956 14.174 12.545 12.879 9.666 9.371 133.588 104.978 51.594 23.750 13.859 12.235 12.603 10.047 10.062 137.767 111.114 53.124 23.455 13.340 11.716 12.144 10.747 10.434 139.146 114.972 54.054 23.328 13.077 11.459 11.909 11.124 10.756 139.880 116.350 54.924 23.232 12.854 11.247 11.710 11.450 11.139 140.285 118.660 56.040 23.132 12.593 11.011 11.480 11.837 11.474 140.314 120.300 57.095 23.055 12.368 10.816 11.287 12.177 11.878 140.041 121.770 58.455 22.975 12.103 10.597 11.068 12.586 12.238 139.573 122.625 59.743 22.912 11.874 10.418 10.891 12.950 12.677 138.780 123.144 61.395 22.843 11.605 10.218 10.702 13.394 13.139 137.791 123.157 63.200 22.779 11.332 10.026 10.539 13.863 13.552 136.928 122.788 64.833 22.729 11.098 9.870 10.425 14.281 14.056 136.065 121.905 66.800 22.677 10.819 9.691 10.322 14.791 14.511 135.558 120.780 68.508 22.667 10.277 9.530 10.207 15.821 15.073 135.274 119.128 70.480 22.667 10.277 9.350 10.207 15.821 15.678 135.274 119.128 70.480 22.667 10.277 9.350 10.207 15.821 15.678 135.274 119.128 70.480 22.667 10.277 9.350 10.207 15.821 15.678 135.760 114.313 75.304 22.600 9.970 9.145 10.170 16.433 16.935 135.760 114.313 75.304 22.607 9.380 8.695 10.083 17.707 17.578 136.044 113.347 76.215 22.834 9.113 8.456 10.016 18.356 18.358 136.307 112.650 76.812 23.074 8.819 9.113 8.456 10.016 18.356 19.933 136.591 112.350 76.822 24.561 8.135 7.259 9.502 21.694 20.874 136.671 11 533 76.022 24.561 8.135 7.259 9.502 21.694	8.276	123.229	95 • 1:10	49.631		14.881		~	
8.995 130.466 101.485 50.856 23.956 14.174 12.545 12.879 9.666 9.371 133.588 104.978 51.594 23.750 13.859 12.235 12.603 10.047 9.690 135.782 107.892 52.272 23.602 13.612 11.988 12.335 10.371 10.062 137.767 111.114 53.124 23.455 13.340 11.716 12.144 10.747 10.434 139.146 114.972 54.054 23.328 13.077 11.459 11.909 11.124 10.756 139.880 116.350 54.924 23.232 12.854 11.247 11.710 11.450 11.139 140.285 118.660 56.040 23.132 12.593 11.011 11.480 11.837 11.474 140.314 120.300 57.095 23.055 12.368 10.816 11.287 12.177 11.878 140.041 121.770 58.455 22.975 12.103 10.597 11.068 12.586 12.238 139.573 122.625 59.743 22.912 11.874 10.418 10.891 12.950 12.238 139.573 122.625 59.743 22.912 11.874 10.418 10.891 12.950 12.677 138.780 123.144 61.395 22.843 12.605 10.218 10.702 13.394 13.139 137.791 123.457 63.200 22.779 11.332 10.026 10.539 13.863 13.552 136.928 122.788 64.833 22.729 11.098 9.870 10.425 14.281 14.056 136.065 121.905 66.800 22.677 10.819 9.691 10.322 14.791 14.511 135.558 120.780 68.508 22.639 10.574 9.538 10.259 15.251 15.073 135.274 119.128 70.480 22.607 10.277 9.350 10.207 15.821 15.678 135.274 119.128 70.480 22.607 10.277 9.350 10.207 15.821 15.073 135.274 119.128 70.480 22.607 10.277 9.350 10.207 15.821 15.678 135.478 115.815 73.848 22.623 9.699 8.950 10.170 16.433 16.935 135.760 114.313 75.304 22.704 9.380 8.695 10.083 17.707 17.578 136.044 113.347 76.215 22.834 9.113 8.456 10.016 18.356 19.062 136.461 112.377 76.812 23.074 8.819 8.163 9.910 19.146 19.933 1366.591 112.350 76.679 23.880 8.340 7.5584 9.693 9.693 19.694 20.874 136.671 11 533 76.022 24.561 8.135 7.259 9.502 21.694	8.667	127.337	98.493	50.266	24.168	-	-	-	
9.690 135.782 107.892 52.272 23.602 13.612 11.988 12.385 10.371 10.062 137.767 111.114 53.124 23.455 13.340 11.716 12.144 10.747 10.434 139.146 114.072 54.054 23.328 13.077 11.459 11.909 11.124 10.756 139.880 116.350 54.924 23.232 12.854 11.247 11.710 11.450 11.139 140.285 118.660 56.040 23.132 12.593 11.011 11.480 11.837 11.474 140.314 120.300 57.095 23.055 12.368 10.816 11.287 12.177 11.878 140.041 121.770 58.455 22.975 12.103 10.597 11.068 12.586 12.238 139.573 122.625 59.743 22.912 11.874 10.418 10.891 12.950 12.677 138.780 123.144 61.395 22.843 11.605 10.218 10.702 13.394 13.139 137.791 123.157 63.200 22.779 11.332 10.026 10.539 13.863 13.552 136.928 122.788 64.833 22.729 11.098 9.870 10.425 14.281 14.056 136.065 121.905 66.800 22.677 10.819 9.691 10.322 14.791 14.511 135.558 120.780 66.800 22.6677 10.819 9.691 10.322 14.791 14.511 135.558 120.780 68.508 22.6639 10.574 9.538 10.259 15.251 15.073 135.274 119.128 70.480 22.607 10.277 9.350 10.207 15.821 15.678 135.277 117.312 72.367 22.600 9.970 9.145 10.170 16.433 16.234 135.448 115.815 73.848 22.623 9.699 8.950 10.137 16.996 16.935 135.760 114.313 75.304 22.704 9.380 8.695 10.083 17.707 17.578 136.044 113.347 76.215 22.834 9.113 8.456 10.016 18.356 18.356 307 112.650 76.812 23.378 8.585 7.900 9.799 19.859 19.933 136.591 112.350 76.679 23.880 8.340 7.584 9.653 20.742 20.874 136.671 11 533 76.022 24.561 8.135 7.259 9.502 21.694	8.995	130.466	101.485	50.856	23.956	14-174		_	
10.062 137.767 111.114 53.124 23.455 13.340 11.716 12.144 10.747 10.434 139.146 114.072 54.054 23.328 13.077 11.459 11.909 11.124 10.756 139.880 116.350 54.924 23.232 12.854 11.247 11.710 11.450 11.139 140.285 118.660 56.040 23.132 12.593 11.011 11.480 11.837 11.474 140.314 120.300 57.095 23.055 12.368 10.616 11.287 12.177 11.878 140.041 121.770 58.455 22.975 12.103 10.597 11.068 12.586 12.238 139.573 122.625 59.743 22.912 11.874 10.418 10.891 12.950 12.677 138.780 123.444 61.395 22.843 11.605 10.218 10.702 13.394 13.139 137.791 123.457 63.200 22.779 11.332 10.026 10.539 13.863 13.552 136.928 122.788 64.833 22.729 11.098 9.870 10.425 14.281 14.056 136.065 121.905 66.800 22.677 10.819 9.691 10.322 14.791 14.511 135.558 120.780 68.508 22.639 10.574 9.538 10.259 15.251 15.073 135.274 119.128 70.480 22.607 10.277 9.350 10.207 15.821 15.678 135.277 117.312 72.367 22.600 9.970 9.145 10.170 16.433 16.234 135.448 115.815 73.848 22.623 9.699 8.950 10.137 16.996 16.234 135.448 115.815 73.848 22.623 9.699 8.950 10.137 16.996 16.234 135.448 115.815 73.848 22.623 9.699 8.950 10.137 16.996 16.335 135.760 114.333 76.022 28.834 9.113 8.456 10.016 18.356 18.358 136.307 112.650 76.215 22.834 9.113 8.456 10.016 18.356 18.358 136.307 112.650 76.215 22.834 9.113 8.456 10.016 18.356 19.933 136.591 112.350 76.022 23.074 8.819 8.340 7.584 9.990 19.142 20.874 136.671 11 533 76.022 24.561 8.135 7.259 9.602 21.694	9.371	133.588	104-978	51.594	23.750	13.859	12.235	12.603	10.047
10.434 139.146 114.072 54.054 23.328 13.077 11.459 11.909 11.124 10.756 139.880 116.350 54.924 23.232 12.854 11.247 11.710 11.450 11.139 140.285 118.660 56.040 23.132 12.593 11.011 11.480 11.837 11.474 140.314 120.300 57.095 23.055 12.368 10.816 11.287 12.177 11.878 140.041 121.770 58.455 22.975 12.103 10.597 11.068 12.586 12.238 139.573 122.625 59.743 22.912 11.874 10.418 10.891 12.950 12.677 138.780 123.144 61.395 22.843 12.605 10.218 10.702 13.394 13.139 137.791 123.145 61.395 22.879 11.032 10.026 10.539 13.863 13.552 136.928 122.788 64.833 22.729 11.098 9.870 10.425 14.281 14.056 136.065 121.905 66.800 22.677 10.819 9.691 10.322 14.791 14.511 135.558 120.780 68.508 22.639 10.574 9.538 10.259 15.251 15.073 135.274 119.128 70.480 22.607 10.277 9.350 10.207 15.821 15.678 135.277 117.312 72.367 22.600 9.970 9.145 10.170 16.433 16.234 135.448 115.815 73.848 22.623 9.699 8.950 10.170 16.433 16.935 135.448 115.815 73.848 22.623 9.699 8.950 10.170 16.433 16.935 135.448 115.815 73.848 22.623 9.699 8.950 10.137 16.996 16.935 135.760 114.313 75.304 22.704 9.380 8.695 10.083 17.707 17.578 136.044 113.347 76.215 22.834 9.113 8.456 10.016 18.356 18.358 136.307 112.650 76.812 23.874 8.819 8.163 9.910 19.146 19.933 136.591 112.350 76.679 23.880 8.340 7.584 9.653 20.742 20.874 136.671 11 533 76.022 24.561 8.135 7.259 9.502 21.694	9.690	135.782	107.892	52.272	23.602	13.612	11.988	12.385	10.371
10.756       139.880       116.350       54.924       23.232       12.854       11.247       11.710       11.450         11.139       140.285       118.660       56.040       23.132       12.593       11.011       11.480       11.837         11.474       140.314       120.300       57.095       23.055       12.368       10.816       11.287       12.177         11.878       140.041       121.770       58.455       22.975       12.103       10.597       11.068       12.586         12.238       139.573       122.625       59.743       22.912       11.874       10.418       10.891       12.950         12.677       138.780       123.444       61.395       22.843       11.605       10.218       10.702       13.394         13.139       137.791       123.457       63.200       22.779       11.332       10.026       10.539       13.863         13.552       136.928       122.788       64.833       22.729       11.098       9.870       10.425       14.281         14.056       136.065       121.905       66.800       22.677       10.819       9.691       10.322       14.791         14.511       135.578       1	10.062	137.767	111-114	53.124	23.455	13.340	11.716	12.144	10.747
11.139 140.285 118.660 56.040 23.132 12.593 11.011 11.480 11.837 11.474 140.314 120.300 57.095 23.055 12.368 10.816 11.287 12.177 11.878 140.041 121.770 58.455 22.975 12.103 10.597 11.068 12.586 12.238 139.573 122.625 59.743 22.912 11.874 10.418 10.891 12.950 12.677 138.780 123.444 61.395 22.843 11.605 10.218 10.702 13.394 13.139 137.791 123.457 63.200 22.779 11.332 10.026 19.539 13.863 13.552 136.928 122.788 64.833 22.729 11.098 9.870 10.425 14.281 14.056 136.065 121.905 66.800 22.677 10.819 9.691 10.322 14.791 14.511 135.558 120.780 68.508 22.639 10.574 9.538 10.259 15.251 15.073 135.274 119.128 70.480 22.607 10.277 9.350 10.207 15.821 15.678 135.277 117.312 72.367 22.600 9.970 9.145 10.170 16.433 16.234 135.448 115.815 73.848 22.623 9.699 8.950 10.137 16.996 16.935 135.760 114.313 75.304 22.704 9.380 8.695 10.083 17.707 17.578 136.044 113.347 76.215 22.834 9.113 8.456 10.016 18.356 18.358 136.307 112.550 76.812 23.074 8.819 8.163 9.910 19.146 19.062 136.461 112.377 76.939 23.378 8.585 7.900 9.799 19.859 19.933 136.591 112.350 76.679 23.880 8.340 7.584 9.653 20.742 20.874 136.671 11 533 76.022 24.561 8.135 7.259 9.502 21.694	10.434	139.146	114.972		23.328	13.077	11.459	11.909	11.124
11.474 140.314 120.300 57.095 23.055 12.368 10.816 11.287 12.177 11.878 140.041 121.770 58.455 22.975 12.103 10.597 11.068 12.586 12.238 139.573 122.625 59.743 22.912 11.874 10.418 10.891 12.950 12.677 138.780 123.144 61.395 22.843 11.605 10.218 10.702 13.394 13.139 137.791 123.157 63.200 22.779 11.332 10.026 10.539 13.863 13.552 136.928 122.788 64.833 22.729 11.098 9.870 10.425 14.281 14.056 136.065 121.905 66.800 22.677 10.819 9.691 10.322 14.791 14.511 135.558 120.780 68.508 22.639 10.574 9.538 10.259 15.251 15.073 135.274 119.128 70.480 22.607 10.277 9.350 10.207 15.821 15.678 135.277 117.312 72.367 22.600 9.970 9.145 10.170 16.433 16.234 135.448 115.815 73.848 22.623 9.699 8.950 10.137 16.996 16.935 135.760 114.313 75.304 22.704 9.380 8.695 10.083 17.707 17.578 136.044 113.347 76.215 22.834 9.113 8.456 10.016 18.356 18.358 136.307 112.650 76.812 23.074 8.819 8.163 9.910 19.146 19.062 136.461 112.377 76.939 23.880 8.340 7.584 9.653 20.742 20.874 136.671 11 533 76.022 24.561 8.135 7.259 9.502 21.694	10.756	139.880	116.350	54.924	23.232	12.854	11-247	11.710	11.450
11.878       140.041       121.770       58.455       22.975       12.103       10.597       11.068       12.586         12.238       139.573       122.625       59.743       22.912       11.874       10.418       10.891       12.950         12.677       138.780       123.144       61.395       22.843       11.605       10.218       10.702       13.394         13.139       137.791       123.457       63.200       22.779       11.332       10.026       10.539       13.863         13.552       136.928       122.788       64.833       22.729       11.098       9.870       10.425       14.281         14.056       136.065       121.905       66.800       22.677       10.819       9.691       10.322       14.791         14.511       135.558       120.780       68.508       22.639       10.574       9.538       10.259       15.251         15.073       135.274       119.128       70.480       22.607       10.277       9.350       10.207       15.821         15.678       135.277       117.312       72.367       22.600       9.970       9.145       10.170       16.433         16.935       135.760       14.31	11.139	140.285	118.660	56.040	23.132	12.593	11.011	11-480	11.837
12.238       139.573       122.625       59.743       22.912       11.874       10.418       10.891       12.950         12.677       138.780       123.144       61.395       22.843       11.605       10.218       10.702       13.394         13.139       137.791       123.157       63.200       22.779       11.332       10.026       10.539       13.863         13.552       136.928       122.788       64.833       22.729       10.998       9.870       10.425       14.281         14.056       136.065       121.905       66.800       22.677       10.819       9.691       10.322       14.791         14.511       135.558       120.780       68.508       22.639       10.574       9.538       10.259       15.251         15.073       135.274       119.128       70.480       22.607       10.277       9.350       10.207       15.821         15.678       135.277       117.312       72.367       22.600       9.970       9.145       10.170       16.433         16.234       135.468       115.815       73.848       22.623       9.699       8.950       10.137       16.996         16.935       136.046       114.313	11.474	140.0314	120.300	57 • 095	23.055	12.368	10.816	11.287	12.177
12.677       138.780       123.144       61.395       22.843       11.605       10.218       10.702       13.394         13.139       137.791       123.457       63.200       22.779       11.332       10.026       10.539       13.863         13.552       136.928       122.788       64.833       22.729       11.098       9.870       10.425       14.281         14.056       136.065       121.905       66.800       22.677       10.819       9.691       10.322       14.791         14.511       135.558       120.780       68.508       22.639       10.574       9.538       10.259       15.251         15.073       135.274       119.128       70.480       22.607       10.277       9.350       10.207       15.821         15.678       135.277       117.312       72.367       22.600       9.970       9.145       10.170       16.433         16.234       135.448       115.815       73.848       22.623       9.699       8.950       10.137       16.996         16.935       135.760       114.313       75.304       22.704       9.380       8.695       10.083       17.707         17.578       136.044       113.347 </td <td>11.878</td> <td>140.041</td> <td>121.770</td> <td>58.455</td> <td>22.975</td> <td>12.103</td> <td>10.597</td> <td>11.068</td> <td>12.586</td>	11.878	140.041	121.770	58.455	22.975	12.103	10.597	11.068	12.586
13.139       137.791       123.457       63.200       22.779       11.332       10.026       10.539       13.863         13.552       136.928       122.788       64.833       22.729       11.098       9.870       10.425       14.281         14.056       136.065       121.905       66.800       22.677       10.819       9.691       10.322       14.791         14.511       135.558       120.780       68.508       22.639       10.574       9.538       10.259       15.251         15.073       135.274       119.128       70.480       22.607       10.277       9.350       10.207       15.821         15.678       135.277       117.312       72.367       22.600       9.970       9.445       10.170       16.433         16.234       135.448       115.815       73.848       22.623       9.699       8.950       10.137       16.996         16.935       135.760       114.313       75.304       22.704       9.380       8.695       10.083       17.707         17.578       136.044       113.337       76.215       22.834       9.113       8.456       10.016       18.356         18.358       136.461       112.377 <td></td> <td></td> <td>122.625</td> <td>59.743</td> <td>22.912</td> <td>11.874</td> <td>1-0-418</td> <td>10.891</td> <td>12.950</td>			122.625	59.743	22.912	11.874	1-0-418	10.891	12.950
13.552       136.928       122.788       64.833       22.729       11.098       9.870       10.425       14.281         14.056       136.065       121.905       66.800       22.677       10.819       9.691       10.322       14.791         14.511       135.558       120.780       68.508       22.639       10.574       9.538       10.259       15.251         15.073       135.274       119.128       70.480       22.607       10.277       9.350       10.207       15.821         15.678       135.277       117.312       72.367       22.600       9.970       9.145       10.170       16.433         16.234       135.448       115.815       73.848       22.623       9.699       8.950       10.137       16.996         16.935       135.760       114.313       75.304       22.704       9.380       8.695       10.083       17.707         17.578       136.044       113.347       76.215       22.834       9.113       8.456       10.016       18.356         18.358       136.461       112.377       76.939       23.378       8.819       8.163       9.910       19.146         19.933       136.591       112.350				61 • 395	22.843	1-1-605	10-218	10,702	13.394
14.056       136.065       121.905       66.800       22.677       10.819       9.691       10.322       14.791         14.511       135.558       120.780       68.508       22.639       10.574       9.538       10.259       15.251         15.073       135.274       119.128       70.480       22.607       10.277       9.350       10.207       15.821         15.678       135.277       117.312       72.367       22.600       9.970       9.145       10.170       16.433         16.234       135.448       115.815       73.848       22.623       9.699       8.950       10.137       16.996         16.935       135.760       114.313       75.304       22.704       9.380       8.695       10.083       17.707         17.578       136.044       113.347       76.215       22.834       9.113       8.456       10.016       18.356         18.358       136.307       112.650       76.812       23.074       8.819       8.163       9.910       19.146         19.062       136.461       112.377       76.939       23.378       8.585       7.900       9.799       19.859         19.933       136.591       112.350		-		_	22.779		10.026	10.539	13.863
14.511       135.558       120.780       68.508       22.639       10.574       9.538       10.259       15.251         15.073       135.274       119.128       70.480       22.607       10.277       9.350       10.207       15.821         15.678       135.277       117.312       72.367       22.600       9.970       9.145       10.170       16.433         16.234       135.448       115.815       73.848       22.623       9.699       8.950       10.137       16.996         16.935       135.760       114.313       75.304       22.704       9.380       8.695       10.083       17.707         17.578       136.044       113.347       76.215       22.834       9.113       8.456       10.016       18.356         18.358       136.307       112.650       76.812       23.074       8.819       8.163       9.910       19.146         19.062       136.461       112.377       76.939       23.378       8.585       7.900       9.799       19.859         19.933       136.591       112.350       76.679       23.880       8.340       7.584       9.502       21.694         20.874       136.671       11				64 • 833	22.729		9.870	10.425	14.281
15.073       135.274       119.128       70.480       22.607       10.277       9.350       10.207       15.821         15.678       135.277       117.312       72.367       22.600       9.970       9.145       10.170       16.433         16.234       135.448       115.815       73.848       22.623       9.699       8.950       10.137       16.996         16.935       135.760       114.313       75.304       22.704       9.380       8.695       10.083       17.707         17.578       136.044       113.347       76.215       22.834       9.113       8.456       10.016       18.356         18.358       136.307       112.650       76.812       23.074       8.819       8.163       9.910       19.146         19.062       136.461       112.377       76.939       23.378       8.585       7.900       9.799       19.859         19.933       136.591       112.350       76.679       23.880       8.340       7.584       9.653       20.742         20.874       136.671       11       533       76.022       24.561       8.135       7.259       9.502       21.694						T	9.691		
15.678       135.277       117.312       72.367       22.600       9.970       9.145       10.170       16.433         16.234       135.448       115.815       73.848       22.623       9.699       8.950       10.137       16.996         16.935       135.760       114.313       75.304       22.704       9.380       8.695       10.083       17.707         17.578       136.044       113.347       76.215       22.834       9.113       8.456       10.016       18.356         18.358       136.307       112.650       76.812       23.074       8.819       8.163       9.910       19.146         19.062       136.461       112.377       76.939       23.378       8.585       7.900       9.799       19.859         19.933       136.591       112.350       76.679       23.880       8.340       7.584       9.653       20.742         20.874       136.671       11       533       76.022       24.561       8.135       7.259       9.502       21.694						10.574	9.538	_	15.251
16.234       135.448       115.815       73.848       22.623       9.699       8.950       10.137       16.996         16.935       135.760       114.313       75.304       22.704       9.380       8.695       10.083       17.707         17.578       136.044       113.347       76.215       22.834       9.113       8.456       10.016       18.356         18.358       136.307       112.650       76.812       23.074       8.819       8.163       9.910       19.146         19.062       136.461       112.377       76.939       23.378       8.585       7.900       9.799       19.859         19.933       136.591       112.350       76.679       23.880       8.340       7.584       9.653       20.742         20.874       136.671       11       533       76.022       24.561       8.135       7.259       9.502       21.694									
16.935       135.760       114.313       75.304       22.704       9.380       8.695       10.083       17.707         17.578       136.044       113.347       76.215       22.834       9.113       8.456       10.016       18.356         18.358       136.307       112.650       76.812       23.074       8.819       8.163       9.910       19.146         19.062       136.461       112.377       76.939       23.378       8.585       7.900       9.799       19.859         19.933       136.591       112.350       76.679       23.880       8.340       7.584       9.653       20.742         20.874       136.671       11       533       76.022       24.561       8.135       7.259       9.502       21.694									
17.578     136.044     113.347     76.215     22.834     9.113     8.456     10.016     18.356       18.358     136.307     112.650     76.812     23.074     8.819     8.163     9.910     19.146       19.062     136.461     112.377     76.939     23.378     8.585     7.900     9.799     19.859       19.933     136.591     112.350     76.679     23.880     8.340     7.584     9.653     20.742       20.874     136.671     11     533     76.022     24.561     8.135     7.259     9.502     21.694									
18.358 136.307 112.650 76.812 23.074 8.819 8.163 9.910 19.146 19.062 136.461 112.377 76.939 23.378 8.585 7.900 9.799 19.859 19.933 136.591 112.350 76.679 23.880 8.340 7.584 9.653 20.742 20.874 136.671 11 533 76.022 24.561 8.135 7.259 9.502 21.694									17.707
19.062 136.461 112.377 76.939 23.378 8.585 7.900 9.799 19.859 19.933 136.591 112.350 76.679 23.880 8.340 7.584 9.653 20.742 20.874 136.671 11 533 76.022 24.561 8.135 7.259 9.502 21.694							_		
19.933 136.591 112.350 76.679 23.880 8.340 7.584 9.653 20.742 20.874 136.671 11 533 76.022 24.561 8.135 7.259 9.502 21.694								-	
20.874 136.671 11 533 76.022 24.561 8.135 7.259 9.502 21.694				-					
		_		_		-	-		
21.748 135.625 112.789 75.181 25.304 7.999 6.978 9.374 22.579				_					
	21.748	136.625	112.789	75 • 181	25.304	7-999	6 • 97 8	9.374	22.579

MACH NO = 30.00

CONE ANGLE = 9.00 ANGLE OF ATTACK = 10.00

,.,	(On 110 -	00100	OUTL AITOL	/• /•	, A1105	C Of Att	MOK - 1	
		P /	P FREE-ST	TREAM AT	PLANE	ANGLES		
L/RN	0.	30 •	60.	90.	120.	150.	180.	S/RN
_, _,								
22.865	136.360	113.178	73.984	26.357	7.890	6.651	9.226	23.709
23.922	135.995	113.589	72.893	27.387	7.837	6.376	9.094	24.780
25.297	135.548	114.082	71.573	28.656	7.814	6.063	8.912	26.172
26.798	135.227	114.518	70.634	29.840	7.822	5.772	8.683	27.691
28.145	135.091	114.751	69.914	30.691	7.843	5• <b>5</b> 50	8.450	29.055
	135.066		69.206	31.467	7.879	5.320	8.145	30.721
	135.141	114-859	68 • 667	31.946	7.920	5-147	7.871	32.215
	135.338	114.806	68.086	32.307	7.979	4.973	7.557	34.037
	135.567		67.628	32.484	8.040	4.843	7.301	35.669
	135.840		67.142	32.585	8.122	4.713	7.023	37.657
	136.077		66.712	32.601	8.217	4.600	6.764	39.739
	136.237		66.390	32.540	8.311	4.514	6.556	41.602
	136.374		66.068	32.369	8.433	4.424	6.324	43.872
	136.455		65.833	32.136	8.543	4.355	6.136	45.904
	136.511		65.539	31.801	8.675	4.281	5.930	48.382
	136.543		65.361	31.455	8.802	4.213	5.738	50.983
	136.563		65.175	31-175	8.905	4.158	5.587	53.316
	136.587		64.979	30.867	9.013	4-096	5.425	56.165
	136.610 136.638	115.403	64。837 64。7 <u>04</u>	30.611 30.318	9.093 9.170	4•045 3•986	5.298 5.159	58.722 61.846
	136.661		64. 624	30.074	9.222	3.936	5.047	64.650
	136.683	115.678	64.5/2	29.796	9.272	3.878	4.921	68.076
	136.695		64.566	29.525	9.316	3.821	4.801	71.676
	136.694	115.747	64.596	29.299	9.352	3.774	4.701	74.908
	136.679		64.671	29.047	9.389	3.723	4.591	78.857
	136.656	115.744	64.768	28.842	9.413	3.683	4.502	82-401
	136.617	115.722	64.919	28.614	9.424	3.640	4.405	36.731
	136.569		65.105	28.398	9.416	3.601	4.316	91.282
	135.524		65.287	28.222	9.400	3.569	4.245	95.365
	136.467		65.519	28.026	9.376	3.536	4.168	100.353
	136.419		65.730	27.867	9.354	3.509	4-106	104.830
	136.363		65.986	27.692	9.326	3.480	4.037	110-297
113.230	136.318	115.483	66.211	27.552	9.298	3-457	3.980	115.201
119.146	136.268	115.433	66.475	27:• 399	9.261	3.432	3.917	121.191
125.358	136.222	115.385	66.737	2.7257	9.221	3.408	3.855	127.480
	136.186		66•959	27144	9.186	3.388	3.803	133-121
	136.148		67.211	27.021	9.144	3.365		140.006
	136-118		67.421	26.923	9.107	3.345		146.179
	136.087		67-658	26.817	9.063	3.323		153.713
	136.060		67.885	26.720	9.019	3.301		161.620
	136.040	115.134	68.071	26.642	8.982	3.282		168.708
	136.020	115.094	68.280	26.559	8.941	3.260		177.354
	136.005		68.450	26.493	8.906	3.242		185.103
	135.991	115.022	68.639	26.423	8 • 867	3.220		194.555
201-401	135.980	114.986	68 - 81-7	26.359	8.829	3.198	3 • 375	204.471

K.	ACH NO =	3.50	CONE ANGL	E = 10.0	0 ANGL	E OF ATT	ACK = 10	• 0 0
		P /	P FREE-S1	TREAM AT	PLANE	ANGLES		
L/RN	0.	30 •	60.	90•	120 •	150.	180.	S/RN
			•					
•683	4.380	4.114	3.454	2.696	2.081	1.708	1586	1.249
.754	3.635	3.403	2.829	2.182	1.665	1.355	1.255	1.323
.852	2.995	2.788	2.284	1.731	1.302	1.051	.970	1.422
•970		2.815	2.298	1.733	1.302	1.053	.974	1.543
1.157		2.812	2.284	1.719	1.291	1.046	•968	1.732 1.898
1.320		2.795	2.265	1.705	1.286	1.047 1.050	.971 .980	2.149
1.568		2.751	2.224	1.675	1.273	1.049	• 988	2.431
1.845		2.695	2.173	1.536	1.253 1.234	1.045	• 992	2.662
2.073		2.656	2.135	1.604 1.557	1.213	1.043	1.000	2.996
2.402		2.596 2.570	2•069 2•035	1.526	1.196	1.043	1.004	3.266
2.668		2.550	2.008	1.495	1.172	1.041	1.011	3.650
3.046		2.541	1.985	1.471	1.147	1.035	1.017	4.061
3:450		2.541	1.973	1.454	1.132	1.027	1.018	4.385
3.770 4.216	-	2.548	1.965	1.434	1.116	1.016	1.015	4.838
4.566	-	2.557		1.423	1.106	1.009	1-011	5.194
5.053		2.574	1.961	1.412	1.096	1.003	1007	5.689
5.564	_	2.593		1.404	± : 086	1.001	1-007	6.207
5.963		2-609		1.400	1-579	1.002	1.010	6.612
6.517		2.631		1.395	1.071	1.003	1=•017	7.175
6.951		2-648		1.393	1.057	1.005	1.023	7.615
7.556	2-970-	2: 669		1.391	1.062	1.006	1.031	8.230
8.194		2-690		1.390	1.058	1.808	1:-038	8 - 878
8.697		2.704		1.389	1.056	1.009	1.041	9.388 10.099
9.397		2-722		1.389	1.054	1.011 1.013	1.045 1.048	10.650
9.940	-	2-734		1.390	1.052 1.050	1.015	1.048	11.409
10.687		2.748		1.391 1.392	1.048	1.017	1.057	12.195
11.46		2.760		1.393	1.047	1.01-9	1.061	12.804
12.061		2:•769 2:•778		1.395	1.045	1.021	1.066	13.644
12.888		2-784	-	1.397	1.045	1.023	-	14.296
13.530		2.791		1.399	1.044	1.025		15.195
15.337		2.796		1.402	1.043	1.027	1-079	16.131
16.05	_	2:. 800		1.404	1.043	1.028	1.081	16.858
17.049		2.803		1.406	1.043	1.029	1.084	17.865
17.81	_	2.805		1-408	1.043	1.030	1.086	18-648
18 . 884	-	2 807	-	1.410	1.043	1.031	1.089	19.732
19.99		2808		1.413	1.043	1.032	1.091	20:-864
20.86		2-809	2.125	1.415	1.044	1.033	1.093	21.746
22.07		2-809	2.130	1.417	1.045	1.0-34	1.094	22.968
23.00		2.809		1.419	1.046	1.034	1.095	23.920
24.30		2.809		1.421	1.047	1.035	1.096	25.239
25 + 66		2-888		1.424	1.048	1.035	1.097	26 • 618
26.72		2.808		1.426	1.049	1.036	1.097 1.097	27-694 29-184
28.19	2 3.089	2-807	2-147	1.428	1.050	1.036	1.071	C 2.0 T C 4

MAC	H NO =	3-•50	CONE	ANGLE	= 10.00	) ANGLE	OF ATT	ACK = 10	<b>0</b> 0 0.
		D /	B = B	FF-STR	EAM AT	PLANE	ANGLES		
LZRN	0.	30.		60.	90.	120.	150.	180.	S/RN
W. F-1(11	•					4 054		1.097	30.347
29.337	3.089	2.806		148	1.430		1.037	1.096	31.959
30.925	3.089	2.806			1.432		1.037	1.096	33.216
32.162	3.089	2.805		151	1.434	1.053	1.037 1.037	1.096	34.959
33-879	3.089	2.804		151	1.437	1.054 1.055	1.038	1.096	36.781
35.674	3.090	2.803		151	1.439	1.055	1.038	1.096	38.203
37.074	3.090	2.803		151	1.441	1.056	1.039	1.095	40.174
39.015	3.090	2.802		150	1.444	1.057	1.039	1.095	41.711
40.529	3,091	2.802		150	1.446	1.058	1.039	1.095	
42-629	3.091	2.801		148	1.449 1.452	1.058	1.040	1.095	
44-825	3.092	2.801		147	1.454	1.059	1.040	1.095	
46.538	3.093	2.801		145	1.456	1.059	1.041	1.095	
48.913	3.093	2.800		143	1.458	1.059	1.041	1.095	
50.766	3.094	2.800		142	1.450	1.060	1.042	1-094	
53.335	3.095	2.800		140 138	1.463	1.060	1.042	1.094	
56.023	3.096	2.800		136	1.465	1.060	1.042	1.094	
58.120	3.096	2.801		134	1.467	1.061	1.043	1.094	
61.028	3.097	2.801		132	1.468	1.061	1.043		
63.297	3.097	2.801		130	1,470	1.061	1.043		
66.444	3.098	2.801 2.802		128	1.471	1.061	1.044	1.094	
69•=7.36	3.098	2.802		126	1.472	1.062	1.044	-	
72.305	3.899	2.802		124	1.473	1.062	1.044	1-093	
75:• <del>-</del> 86 <sup>-</sup> 8	3.099	2.803		123	1.474	1.062	1.044	-	
78 - 648	3.099 3.100	2.803		121	1.475	1.062	1.045	1.093	
82-504	3.100	2.803		120	1.476	1.063	1.045	1.093	
86.540	3.100	2.804		118	1.476	1.063	1.045	1.093	91.629
89⊶688 94⊶057	3.100	2.804		117	1.477	1.063	1.045	1:.092	
97.466	3.100	2.804		116	1.477	1.064	1.045	1.092	99.526
102-195	3.100	2.805		11-5	1.477	1.064	1.045	1.092	104.329
107-144	3.100	2.805		114	1.478	1.064	1.046		109.354
111.006	3.100	2.805			1.478	1.065	1.046		113.276
116.364	3.100	2.805		112	1.478	1.065	1.046		118.717
120.546	3.100	2.805		112	1.478	1.066	1.046		122.963
126.348	3.099	2.806		111	1.478	1.066	1.046		128 - 854
132.419	3.099	2.806		111	1.478	1.066	1.046		135.019
137-158	3.099	2.806	2	111	1.477	1.067	1.046		139.831
143 732	3.099	2.806		110	1.477	1.057	1.046		146.506
148.862	3.098	2.806	2	110	1.477	1.067	1.046	1.091	
155.981	3.098	2.806	2	• 110	1.476	1.068	1.046		158.944
163.430	3.098	2.806	2	. 110	1.476	1.068	1.046	1-091	
169.243	3.098	2.806	2	• 11 <u>°</u> 0	1.476	1.069	1.046		172.411
177.309	3.097	2.806		• 111	1.475	1.069	1.046		180.601
183.603	3.097	2.806		. 111	1.475	1.069	1.046		186.992
192.335	3.097	2.806		. 111	1.474	1.070	1.046	1.091	195.860
201-474	3.097	2.806	2	•112	1.473	1.070	1.046	1.091	205.139

# NSHC/HOL/TR 75-45

MAC	H NO =	5 • Ú O	CONE ANGL	E = 10.00	) ANGL	E OF ATT	ACK = 10	.00
		D /	P FREE-ST	REAM AT	PLANE	ANGLES		
1 (0)	•	30 •	60 •	90•	120.	150.	180.	S/RN
L/RN	0 •	30•	00•	,,,,	2233			
700	7.465	6.965	5.738	4.360	3.270	2.626	2.417	1.274
•708	5.562	5.161	4.188	3.121	2.300	1.823	1.671	1.379
	5.278	4.883	3.933	2.910	2.138	1.698	1.559	
•916 1•091	5.160	4.760	3.806	2.800	2.052	1.631	1.499	1.665
1.291	5.030	4.630	3.687	2.710	1-994	1.593	1.468	
	4.831	4.436	3.511	2.577	1.914	1.554		
1.832	4.670	4.278	3.368	2.463	1.840	1.515	1.419	2.418
2.112	4.526	4.137	3.231	2.351	1.764	1.472	1.392	
2.415	4.425	4.005	3.091	2.241	1.697		1.368	3.009
2.821	4.344	3.911	2.975	2.131	1.612		1.341	3.421
3.164	4.319	3.866	2.908	2.062	1.547		1.316	
3.521	4.320	3.848	2.858		1.491		1.289	4.132
3.889	4.345	3.850		1.949	1.445	1.270	1.256	4.506
4.362	4.399	3.876	2.803	1.901	1398	1.228	1.217	4.987
4.750	4.457	3.910	2.797	1.874	1.366	1.203	1.191	5.380
5.145	4.522	3.954		1.852	1.337	1.183	1.173	5.781
5.547	4.592	4.005			1.312	1.166	1.161	6.193
6.061	4.681	4.07-4		1.820	1.286	1-148	1.150	6.712
6.481	4.749	-		1.811	1.269	1.135	1.143	7.139
6.911	4-813			1.805	1.256	1.122	1.135	7.575
7.351	4.873			1.802	1.244	1.111	1.127	
7.802	4.928	4.299	2.921	1.800	1.234	1.102	1.119	
8-384	4.₌998	4.361	2.956	1.799	1.222	1.092	1.110	
8.865	5.035	4.407	2.984	1.801	1.213	1.086	1.105	
9.363	5•:076	4.449		1.803	1.205	1.082	1.102	
9.880	5.112	4.488	3.043	1.806	1.197	1.078	1.102	
10.556	5 • 148	4.532		1.811	1.188	1-074	1.104	
11.126	5.171	4.563		1.816	1.182	1.072	1.10.7	
11.724	5.188	4.591		1.822	1.176	1.070	1.111	
12.354	5.200	4.614		1.828	-	1.068	1.115	
13.193	5.211	4.636		1.838		1.065		
13.909	5216	4.647	3.226	1.846	1.158	1.063	1.124	
14.670	5.219	4.655	3.251	1.855	1.153	1.060	1.128	15.453
15.465	5.221	4.659	3.274	1.865	1.150	1.058	1.131	16.260
<u>1</u> 6.497	5.222	4.661	3.301	1.878	1.146	1.055	1.136	17.309
17.358	5.222	4.661	3.320	1.889	1 - 144	1.053	1.139	18.183
18.250	5 • 221	4.659		1.901	1.143	1.050	1.143	19.088
19.175	5.219	4 • 657	3.352	1.912	1-143	1.048	1.146	20.028
20.136	5.216	4.654		1.923	1.143	1.046	1.148	21.004
21.390	5 - 213	4.650		1.936	1.145	1 - 043	1.150	22.277 23.339
22.436	5.210	4.646		1.946	1-147	1.041	1.151	24.443
23.523	5.208	4.643		1.956	1.149	1.039	1.151	
24.652	5.207	4.639		1.965	1.151	1.038	1.151	25.589 27.085
26.125	5.205	4.635		1.977	1-155	1.036	1.150	28.334
27.355	5 • 2 6 4	4.632	3.392	1.986	1.158	4035	1.150	201009

MA	CH NO =	5.00	CONE ANGL	$E = 10 \cdot 0$	0 ANGL	E OF ATT	ACK = 1	0.00
					. D. ANG	ANCLES		
	•		P FREE-ST			ANGLES 150.	180.	SZRN
L/RN	0.	30.	60.	90•	120.	150 •	700.	21/4/4
28.634	5.203	4.630	3.390	1.995	1.161	1.034	1-149	29.632
29.962	5.203	4.628	3.386	2.004	1.165	1.034	1.149	30.982
31.69.6	5.203	4.625	3.381	2.015	1.169	1.034	1.148	32.742
33.145	5.204	4.624	3.376	2.023	i * 172	1.034	1.147	34.213
34.650	5.205	4.523		2.031	1.176	1.034	1.146	35.742
36.215	5.206	4.622	3.364	2.039	1.178	1.034	1.144	37.330
38.257	5.208	4.622	3.356	2.047	1.182	1.034	1.143	39.404
39.963	5.210	4.622	3.349	2.054	1.184	1.035	1.141	41.136
41.735	5.212	4.622	3.342	2.059	1.186	1.936	1.140	42.936
43.578	5.214	4.623	3.335	2.064	1-188	1.036	1.139	44.807
45.493	5.216	4.624		2.069	1.190	.1.037	1.138	46.752
47.993	5.219	4.625		2.074	1.192	1.038	1.136	49.291
50.082	5.221	4.626		2.077		1.039	1 * 135	51.412
52.253	5.223	4.628		2.079	1.195	1.040	1.135	53.616
54.510	5.225	4.629		2.081	1.196	1.041	1.134	55.908
57.457	5.228	4.631		2.083	1.198	1.042	1.133	58.901
59.920	5.229	4.633		2.084	1:199	1.043	1.132	61.402
62.481	5.231	4.634		2.085	1.200	1-044	1.131	64.002
65.144	5.232		-	2.085	1201	1 - 044	1.131	66.706
68.621	5.233	4.638		2.085	1203	1.045	$\bar{1}$ .130	70.237
71.528	5.234	4.639		2.084	1.204	1.046	1.129	73.188
74.551	5.234	4.540	_	2.083	1.205	1.047	1.129	76.298
77.694	5.234		-	2.082	1207	1:•047	1-128	79.450
81.800	5.235	4.643	3.261	2.080	1. 208	1.048	1.128	83.620
85.234	5.234	4.643	3.259	2.079	1.210	1 048	1.128	87.106
.88.804	5.234	4.644	3.258	2.•:077	1.211	1-049	1.127	
92.518	5.234	4.645	3.257	2.075	1.212	1.049	1.127	
96.380	5 • 233	4.645	3.256	2 • 0 7 3	1.214	<u>1</u> .• 05 0	1.127	
101.427	5.232	4.645		2.•-071	1.215	1-050		103.549
105.646	5.231	4.645		2.069	1.217	1.051		107.833
110.035	5.230	4.645		2.066	1.218	1.051		112.290
114.599	5.230	4.545		2.064	1.219	1.051		116.924
120.563	5.228	4 • 645		2.061	1.221	1.051		122.980
125.549		4.645				1.051		128.043
130.735	5.226	4 • 645	3 • 26 2	2.056	1.223	1.052		133.309
136.128	5.226	4.644		2.054	1.224	1.052		138.785
143.174	5.224	4.644		2.051	1.225	1.052		145.940
149.065	5.224	4.644		2.049	1.226	1.052		151.921
155.190	5.223	4.643		2 • 0 46	1227	1.052		158.142
101.561	5.222	4.643		2.=044	1228	1.052		164.610
169.882	5.221	4.642		2 • 0 41	1.228	1.052		173.060
176.838	5.220	4.642	-	2.038	1.229	1.052		180.123
184.071	5.220	4.642		2.036	1.230	1.052		187.467
191.591	5 • 21 9	4.641		2.034	1.230	1.052		195.104
201.414	5.219	4.641	3.285	2.031	1.231	1.052	1.124	205.078

MAC	SH NO =	10.00	CONE ANGL	E = 10.0	O ANGL	E OF ATT	ACK = 10	.00
					- DLANE	ANGLES		
			P FREE-ST		PLANE	150 •	180.	S/RN
L/RN	0.	30•	60•	90•	120 4	150 •	100.	<b>07</b> KW
				44 229	40 706	8.181	7.474	1.292
•725	25.572	23.711	19.197	14.228	10.396	5.294	4.812	1.424
•854	18.246	16.782	13.290	9.586	6•839 6•622	5.151	4.695	1.614
1.041	17.729	16.272	12.837	9.255	6.261	4.926	4.513	1.839
1.262	16.835	15.401	12.069	8.683	5.785	4.633	4.284	2.153
1.572	15.658	14.266	11.079	7.951	5 • 7 8 B	4.318	4.041	2.514
1.927	14.559	13.198	10.134	7.216	4.904	4.078	3.854	2.844
2.252	13.819	1.2 430	9.404	6.641	4.477	3 . 82 4	3.666	3.269
2.671	13.233	11,752	8.685	6.052	4.153	3.594	3.496	3.639
3.035	12.950	11.397	8 • 26 8	5.662	3.831	3.322	3.267	4.093
3.482	12.859	11.171	7 • 88-9	5.273	3.569	3.095	3.051	4.550
3.93?	12.960	11.116	7.645	4.975	3.385	2.945	2.905	4.930
4.306	13.161	11-174	7.514	4.787	3.197	2.798	2.771	5.381
4.751	13.500	11.340	7.428	4.609	3.068	2.692	2.681	5.753
5.117	13.831	11.538	7.401	4.491	2.943	2.576	2.584	6.193
5.551	14.243	11.823	7.409	4.381	2.843	2.471	2.491	6.626
5.977	14.651	12.131	7.452	4.301	2.773	2.394	2.415	6.981
6.326	14.991	12.393	7.507	4.249	2.698	2.314	2.329	7.400
6.739	15.407	12.708	7.590	4.200	2.642	2.257		7.745
7.079	15.760	12.973	7.67-2	4.167	2.580	2.199		8 . 154
7.482	16.177	13.299	7.782	4.137	2.525	2.150	2.144	8.560
7.882	1-6.566	13.634		4.114 4.098	2.483	2.114	2 108	8.898
8.214	16.858	13.917		4.083		2.076	2.074	9.303
8.613	17.160	14.251		4.074		2.047	2.052	9.644
8.949	17.368	14.517		4.074	2.370	2.013	2.028	10.059
9.357	17.565	14.814		4.064	2.337	1.981	2.007	10.483
9.775	17-707	15.078		4.065	2.310	1.955	1.989	10.845
10.131	17.786	15.266		4.069		1.924	1.967	11.293
10.573	1-7.840	15.451		4.075		1.899	1.947	11.681
10.955	17.857	15.569		4.075	2.219	1.868	1.922	12.167
11.433	1-7-854		_		2.186	1.839	1.897	12.679
11.937	1.7 - 836			4.113	2.158	1.816	1.877	13.129
12.380	17.815			4.134	2.125	1.790	1.856	13.701
12.944	17.783			4.160	2.090	1.764	1.840	14.314
13.548	17.745			4.186	2.060	1.743	1.831	14.859
14.084	17.713			4.224	2.024	1.717	1.826	15.558
14.773	17.684			4.262	1.994	1.694	1.825	16.184
15.390	17.669			4.202	1.959	1.664	1.824	16.993
16.186	17.660			4.319	1.928	1.630	1.822	17.869
17.049	17.656			4.455	1.905	1.600	1818	18.655
17.823	17-653			4.549	1.882	1.563	1.809	19.672
18.824	17.649			4.638	1.867	1.531	1.799	20.586
19.724	17.643			4.754	1.856	1.494	1.786	21.769
20 + 889	17.632			4.874	1.851	1.457	1.772	23.032
22.134	17.621			4.971	1.853	1.428	1.759	24.130
23.215	17.613	15-179	100-000	40317	14020			-

ANGLE OF ATTACK = 10.00 CONE ANGLE = 1.0.00 MACH NO = 10.00PLANE ANGLES P / P FREE-STREAM AT S/RN 180. 90. 120. 150. 30. 60. L/RN 0. 25.505 1.396 1.740 5.076 1.861 15.184 10.286 24.569 17.502 1.721 26.700 1.372 1.872 17.594 15.193 10.230 5.152 25.745 28.197 1.346 1.694 5.228 1 -889 10.165 17.588 15.204 27.220 29.765 1.324 1.666 10.104 5.287 1.910 17.588 15.212 28.764 31.129 1.643 5.327 1.930 1.308 17.593 10.056 30.108 15.217 32.838 5.363 1.957 1.292 1.617 10.001 31.790 17.692 15.222 34.324 1.980 1.281 1.597 5.385 9.958 33.254 17.512 15,225 2.009 1.271 1.574 36.185 9.909 5.404 35.087 17.627 15.229 1.551 38.135 1.261 2.036 9.864 5.415 37.007 17.642 15.233 1.533 39.830 1.254 5.420 2.058 9.829 38.676 17.656 15.237 1.511 41.953 1.247 9.790 5.419 2.083 17.672 15.244 40.767 1.493 43.800 1.242 2.102 15.250 9.760 5.415 17.684 42.586 1.473 46.113 1.237 9.728 5.405 2-123 15.259 44.863 17.697 2.142 1.456 48.537 5.390 1.233 47.251 17.708 15.268 9.699 1.442 50.646 2.157 1.230 9.677 5.376 17.716 15.277 49.328 53.289 1.428 5.356 2.172 1.229 9.654 17.723 15.287 51.931 1.228 1.415 56.062 2:186 5.334 9.635 54.661 17.729 15.298 58.475 1.228 1.405 9.622 2-196 17.732 5.316 57.038 15.306 1.394 61.501 1.229 2.207 17.734 15.314 9.610 5.293 60.018 64.136 1.230 1.385 2.216 9.603 5.273 17.735 15.320 62.613 67.440 1.231 1.375 9.599 5.250 2.226 1.7 -- 735 15.326 65.867 7-0.908 1.365 9.599 5.226 2.234 1.233 17.733 15.330 69.282 1.358 73.928 9.602 5.207 2-241 1.235 17.731 15.332 72.256 1.237 1.351 77.715 17.728 2.247 5.183 15.334 9.608 75.986 1.239 1.345 81.014 2.252 5.154 79.235 15.334 9.616 17.725 85 • 152 1.241 1.339 2.257 9.628 5.142 83.309 17.720 15.333 1.243 1.333 89.493 2.262 5.120 17.715 15.331 9.642 87.585 1.329 93.274 1.244 2.265 17.711 15.329 9.655 5.103 91.308 98.015 1.246 1.324 9.672 5.083 2-268 17.705 15.326 95.978 1.320 102.144 2-270 1.247 5.067 9.688 100.044 17.701 15.323 1.316 107.321 5.048 2.272 1.248 105.142 17.696 15.319 9.707 1.311 112.752 2.273 1.248 17.690 9.726 5.031 15.316 110.490 1.308 117.480 5.017 2: 274 1.249 9.742 17.686 115.146 15.312 1.249 1.305 123.407 2.274 5.001 120-984 9.762 17.682 15.309 1.249 1.302 128.567 2.274 9.778 4.988 17.678 15.305 126.065 1.299 135.035 4.973 2.274 1.248 17.674 15.302 9.797 132.435 1.248 1.297 141.817 4.960 2.273 9.815 17.671 15.298 139.114 1.295 147.720 1.248 9.830 4.949 2.272 17.658 15.296 144-927 1.293 155.118 4.936 2.271 1.248 9.346 15.293 17.666 152.213 1.248 4.926 2-270 1.291 161.556 9.860 17.654 15.290 158.55? 1.248 1.289 169.623 4.915 2 . 268 15.288 9.875 166.497 17.662 1.287 178.079 1.248 4.905 2.267 9.889 17.661 15.285 174.825 1.285 185.437 1.247 9.900 4.897 2.265 182.071. 17.660 15.283 1.284 194.656 1.247 4.888 2-263 191.150 17.659 9.912 15.281 1.282 204.319 1.247 15.279 9.924 4.880 2.261

17.659

200.667

M	ACH NO =	15.30	CONE ANG	LE = 10.	00 ANGI	E OF AT	TACK = 5	.0.00
		P /	P FREE-S	TREAM A	T PLANE	ANGLES		
L/RN	0.	30 •	50+	90.	120.	150.	180.	SZRN
<b>C</b> 7:(ii	•	000	984	Je •	1200	1700	100•	37 //14
.728	55.729	51.603	41.628	30.695	22.303	17-474	15.941	1.296
.890	39.912	36-651	28.876	20.679	14.658	11.306	10.265	1.461
1.080	38.222	35.012	27.489	19.728	14.070	1:0.921	9.945	1.654
1.351	35.608	32.487	25.306	18.116	13.042	10.285	9.437	1,929
1.668	32.892	29.882	23.041	16.433	11.939	9.586	8 . 886	2.251
2.026	30.495	27-533	20.965	14.812	10.825	8.867	8.321	2.615
2.485	28.474	25.308	18.775	1.3.116	9.685	8.178	7.786	3.081
2.902	27.443	24.124	17.493	11.983	8.784	7.570	7.335	3.504
3.328	27.001	23-423	16.518	11.054	8.034	6.956	5.826	3.937
3.757	27.036	23.123	15.855		7.424	6.431	6.335	4.372
4.181	27.445	23.145	15.410	9.775	6.914	6.019	5.935	4.803
4.598	28-122	23.417	15.144	9.345	6.487	5.687	5.632	5.227
5.074	29.087	23.959	14.994	8.959	6.089	5.354	5.351	5.710
5.471	29.945	24.538	14.972	8.712	5.821	5.100	5.133	6.113
5.857	30-800	25.156	15.020	8.523	5.604	4.873	4.923	6.505
6.233	31.690	25.782	15.118	8.374	5.420	4.675	4.722	6.887
6.599	32.639	26-418	15.255	8.253	5.257	4.506	4.537	7.258
7.014	33.798	27.201	15.450	8.141	5.088	4.341	4.350	7.679
7.361	34-,782	27.921	15.642	8.064	4.959	4.223	4.218	8.031
7.701	35.707	28.682	15.851	8.000	4.846	4.121	4.109	8.377
8.036	35.540	29.466	16-073	7. 947	4.748	4.032	4.020	8.717
8.369	37.258	30.251	16.308	7.904	4.661	3.951	3.946	9.055
8700	37 - 855	31.011	16.554	7. 869	4.585	3.876	3.883	9.391
9.088	38: 396	31:4839	16.859	7.840	4.505	3.793	3.817	9.785
9.424	38.730	32 - 477	17-138	7.823	4.440	3.725	3.763	10.126
9.765	38.951	33.038	17.437	7.811	4.377	3.659	3.709	10.472
19113	39-072	33.511	17-758	7.892	4.314	3.595	3.653	10.826
10.470	39.113	33:-890	18.104	7.798	4.250	3.532	3.595	11.189
10.902	39.087	34:0205	18.540	7•797	4.174	3.461	3.526	11.628
11.289	39.021	34:• 363	18.940	7-799	4.108	3.403	3.467	12.021
11.694	38-921	34.420	19.362	7.804	4041	3.348	3.411	12.432
12.121	38.792	34:•389	19.801	7.811	3.973	3.297	3.360	12.865
12.569	38-646	34-284	20-248	7. 821	3.903	3.248	3.318	13.320
13-040	38.506	34-117	20.687	7 • 836	3.832	3.202	3.28E	13.799
13.624	38-385	33.851	21-173	7.860	3.745	3.149	3.262	14.391
14.159	38.332	33: 575	21-552	7. 891	3.669	3.100	3.251	14.935
14.732	38.4319	33:0-284	21-885	7- 935	3.593	3.048	3.245	15.517
15.348	38,330	33.015	2 <b>2</b> •155	7. 998	3:•517	2.990	3.241	16.142
16 - 014	38-355	32.798	22.350	8.085	3443	2.925	3.232	16.819
16.861	38:• 385	32-624	22.466	8.225	3.351	2.841	3.212	17.679
17.640	38-404	32.548	22.474	8.383	3.297	2.765	3.185	18.469
18-474	38-407	32: 524	22.408	8.578	3.238	2.686	3.153	19.316
1-93-75	38-403	3-2:-539	2-2 - 280	-8.•8 <u>1</u> ₹	3-188	2.604	3.118	20.231
20.357	38:• 392	32.576	22.098	9.086	3.149	2.518	3.083	21.228
21.426	38.362	32-627	21.981	9.385	3-123	2.432	3.047	22.314

MA	CH NO =	15.00	CONE AND	GLE = 10.0	0 ANGL	E OF ATT	ACK = 1	0 2 3 0
		<b>D</b> /	P FRFF-9	STREAM AT	r PLANE	ANGLES		
L/RN	0.	30 •	60•	90.	120 •	150 •	180-	SZRN
22-786	38.301	32.702	21.621		3.108		3.001	
24.030	38.252	32.772	21.418		3.105		2.953	24.957
25.329	38.218	32.829	21.242		3.110	2.183	2.897	
26.688	38.205	32.864	21.087		3.123	2.119	2.834	27.557
28.108	38.211	32.881	20.948		3,145	2.065	2.770	29.099 30.605
29.592	38.231	32.886	20.820		3.177	2.018 1.972	2.705 2.633	32.449
31.407	38.266	32.884	20.585		3·224 3·271	1.972	2.572	34.106
33.039	38.305	32.880	20.578		3.322	1.910	2.513	35.836
34.743	38.349	32.877	20.483 20.398		3.376	1.885	2.455	37.642
36.522	38.390	32.875 32.878	20.324		3.433	1.862	2.399	39.529
38.380	38.426 38.461	32.890	20.324		3.500	1.839	2.337	
40.652 42.694	38.484	32.907	20.191		3.556	1.822	2.288	
44-828	38.503	32.928	20.139			1.807	2.243	
47-020	38.517	32.952	20.101	10.532	3.653	1.793	2.201	-
49.391	38.528	32.977			3.694	1.780	2.161	50.711
51.831	38.536	33.002		10.406	3.729	1.768		2
54.819	38.542	33.029		10.335	3.764	1.755		56.222
57.509	38.546	· ·			3.788		2.049	
60.324	₹8.548				3.809	1.734		
63.269	38.547					1.725	1.988	64.802
66.351	38.545					1. • 71.8	1.960	67.931
70-127	38.540		19.970	10.025	3.861	1.711	1.931	71.766
73.527	38.534	33.093	19.992		3.874	17.07	1.908	75.218
77.084	38.526	33.091	20.020		3.885	1.704	1.886	78.830
80.•:806	38.517	33.088			3.893	1.701	1.866	82.610
34.700	38.507		20.093		3.899	1.700	1.846	86.564
887-74	38.495		20.136		3.901	1.698	1.828	
93.766	38.483				3.902	1.697	1-808	95.769
98 • 257	38.472			9.668	3.901	1.695		100-330
102.956	38.461				3.898	1.693		105.101
107.870	38.450	33.041			3.895	1.692		110.091
1-13-009	38.441	33.033	20.381		3.890	1.690		115.310
1-19-303	38.430		20.435		3.884			
124.965	38.42.2	33.015	20.480		3.878 3.871	1-687 1-686		127.450 133.461
130-885	38.415	33.008	20.523		3.864	1.685		139.745
137.073	38.409		20.564 20.603		3.856	1.684		146.315
143.543	38 404		20.641		3.849	1.682		153.182
150-307	38.399 38.395		20.681		3.840	1.681		161.588
158.585 166.028	38.392		20.714		3.832	1.679		169.147
1.73.808	38.390		20.744		3.824	1.678		177.046
181,938	38.389		20.772		3.817	1.676		185.302
196.434	38.388				3.809	1.675		193.929
2.00 - 831	38.387		20.827		3.800	1.673		204.487
			· ·-				-	

MACH NO = 20.00 ANGLE OF ATTACK = 10.00 CONE ANGLE = 10.60 P / P FPEE-STREAM AT PLANE ANGLES SIRN LIPK 90. 120. 150. 180. c. 30. 69. .729 97.948 97.656 73.042 53.754 38.976 30.488 27.797 1.297 1.461 . Rot 65.527 37.475 26.842 20.879 19.019 71.267 51.876 1.082 61.447 34.422 24.485 19.026 17.347 1.556 57.111 48.155 1.986 1.43 51 461 56.000 43.487 31.078 22.377 17.644 16.189 1.774 56.576 28..25 29.367 16.414 15.244 2.318 51.322 39.426 24.705 14,935 2.756 2.156 51.806 46.618 35.170 18.097 14.079 43.469 37.021 2.567 49,343 22.244 16.386 13.371 13.248 3.164 12.260 3.056 47.214 41.238 29.522 20.016 14.611 12.604 3.660 3.482 43.233 27.975 18.493 13.376 11.581 11.373 4.391 46.714 7.972 4.591 47.112 **39.874** 26.784 17.151 12.214 10.611 10.460 16.289 4.396 48.381 40.120 26.141 11.398 9.960 9.850 5.311 15.609 9.415 4.791 9.366 5.422 49.410 40.746 25.768 10.725 5.887 5.240 15.005 8.888 51.118 41.789 25.578 10.100 8.863 52.580 5.629 8.444 8.510 6.273 42.858 25.575 14.616 9.675 9.267 8.020 8.095 6.708 6.053 54.364 44.32 25.697 14.267 5.413 8.968 7.710 7.769 7.369 56.011 45.099 25.881 14.028 6.813 58.056 13.803 8.662 7.405 7.433 7.475 46.413 26.164 7.813 7.146 59.862 47.633 26.449 13.648 8.430 7.185 7.188 7.52.3 13.500 6.951 8.194 6.966 8.196 61.876 49.158 26.821 7.840 8.518 53.453 50.553 13.396 8.018 6.802 6.784 27.165 6.643 8.834 9.151 \$4.84E 51.963 27.528 13.309 7.865 6.656 3.511 F . 210 6.500 6.501 9.200 53.577 27.975 7.708 13.227 9.81R 57.150 54.893 28.382 13.172 7.587 6.376 6.394 9.512 67. 97 A 7.457 9.173 56.320 28.890 13.123 6.238 6.276 9.876 0.488 58.457 13.089 7.350 6.178 57.410 29.358 6.125 10.191 9.855 68.835 58.509 29.952 13.558 7.226 5,997 6.063 10.565 13.177 58.928 59.286 30.505 13.037 7.119 5.891 5.964 10.891 10.563 58.924 59.985 71.208 13.018 6.991 5,772 5.846 11.283 10,905 28. 924 66.394 13.007 6.881 5.675 5.746 11.531 31.862 12,997 12.254 11.323 59.514 63.651 ×2.682 6.751 5.566 5.633 63.694 12.991 5.479 5.543 12.435 11.697 69.361 33.431 6.638 12.090 68.957 60.592 34.299 12.937 6.525 5.397 5.463 12.833 12.558 67.690 35.127 12.987 5.396 5.388 13.319 60.312 6.391 57.442 59.937 75.902 12,991 6.274 5.232 5.339 13.758 13.09-0 13.533 13.005 5.145 5.300 14.299 67.250 59.362 36.766 6.134 14.793 5.067 5.279 14.919 58.791 37.451 13.039 6.009 57.192 4.956 5.262 14.628 57.189 58.119 38.155 13.081 5.859 15.411 15.98? 15.131 67.246 5.730 5.247 57.616 38.646 13.154 4.859 4.743 5.219 17.901 67.337 57.148 39.047 13.285 5.580 16.763 15.545 67.416 56.898 39.226 13.447 5.455 4.626 5.183 17.357 17.223 4.504 5.135 18.246 67.457 56.766 39.255 13.662 5.336 67.598 56.739 5.068 18.903 19.667 39.123 13.993 5.205 4.354 19.845 67.514 4.220 5.009 19.694 56.788 38.883 14.352 5.107

14.858

15.358

5.G13

4.953

4.059

3.917

4.941

4.887

20.697

21.541

19.834

22.763

67.510

57.457

56.896

57.015

38.476 38.653

MACH NO = 20.00 COME ANGLE = 10.00 ANGLE OF ATTACK = 10.00

		F /	P FPEE-S	TREAM AT	PLANE	ANGLES		
L/RN	J.	33.	<b>50</b> .	90.	120.	150·	180.	S/RN
21.954	67.330	57.183	37.534	15.986	4.905	3.749	4.822	22.860
23.194	57.296	57.342	37.113	16.521	4.880	3.605	4.755	24.318
24.576	67.102	57.514	₹6.696	17.075	4.869	3.448	4.657	25.471
25.822	67.062	57.589	36.402	17.469	4.873	3.327	4.555	26.778
27.395	67.065	57.627	36.136	17.795	4.835	3.204	4.424	28.375
28.878	57.098	57.627	35.880	17.992	4.927	3.114	4.308	29.813
30.283	67.155	57.011	35.672	1-8.118	4.972	3.035	4.193	31.308
32.085	57.248	57.588	35.452	18.198	5.039	2.557	4.062	33.138
<b>37.792</b>	67.335	57.567	35.287	18.226	5.109	2.899	3.953	34.779
35.676	67.426	57.548	35.120	18.215	5.205	2.841	3.829	36.783
37.446	67.499	57.545	×4.999	18.167	5.295	2.798	3.726	38.581
3a.60ē	67.548	57.561	34.880	18.059	5.404	2.755	3.611	40.777
41.553	67.585	57.599	34.792	17.933	5.496	2.722	3.518	42.748
43.922	67.516	57.675	34.698	17.771	5.600	2.687	3.417	45.157
46.953	57.634	57.680	34.623	17.636	5.682	2.659	3.338	47.321
43.270	67.646	57.726	34.555	17.538	5756	2.632	3.264	49.581
51.032	67.658	57.781	34.488	17.366	5829	2.601	3.183	52.346
57.45g	67.567	57.824	34.443	17.248	5.880	2.575	3.119	54.832
56.446	67.675	5:7.857	34.406	17.113	5.927	2.546	3.047	57.874
59.140	67.680	57.897	34.389	17.003	5.963	2.521	2.988	65.510
62.43ª	67.692	57.922	34.387	16.878	€: 001	2.495	2.923	63.958
55 <b>.</b> 403	67.682	57.936	34.401	16.761	6031	2.475	2.871	66.969
69 <b>.</b> 072	67.674	57.944	34.433	16.637	6 • 062	2.454	2.814	70.554
72.295	67.664	57.945	34.475	16.535	6.081	2 • 439	2.76.9	73.968
75.289	67.649	57.941	34.538	16.422	6.097	2.424	2.720	78.323
79.886	67.633	57.933	34.604	16.328	6.406	2-413	2.581	81.669
83.632	67.615	57.922	34.678	16.239	6-109	2.403	2.645	85.483
88.224	57.593	57.958	34.773	16.143	6.109	2392	2.605	_
22.352	67.573	57.894	34.858	16.059	6.104	2.384	2.573	
97.493	57.550	57.877	34.961	15.969	6-297	2.375	2.537	99.463
101.942	67.531	57.852	35.050	15.897	6.068	2-370		104.072
177,496	67.511	57.845	35.154	15.819	6.976	2.363		169.711
112.486	67.495	57.831	35.241	15.757	6:•.063	2.358		114.778
118.589	57.477	57.815	35.340	15.689	6.046	2.352		120.976
124.073	57.464	57.801	35.421	15-635	6030	2348		126.544
129.800	67.453	57.784	35.499	1:5.586	6.013	2.343	_	132.359
135.802	67.441	57.773	35.586	15.532	5.993	2338		139.470
143.092	57.432	57.761	35.656	15.490	5 976	2.333	-	145.857
150.782	67.424	57.748	35.733	15.445	5.955	2.328	-	153.665
157.688	57.418	57.737	35.795	15.410	5938	2.322	-	160.678
166.129	67.413	57.724	35.862	15.373	5.919	2.316	_	169.249
173.710	67.418	57.715	35.916	15.344	5: 902	2.311		176.947
182.975	67.497	57.754	35.974	15.314	5.884	2.305	-	186.355
191.294	67.406	57.695	36.020	15.298	5-868	2300	-	194.802
201.461	67.496	57.685	36.070	15.266	5851	2•₌294	2.205	205.126

CONE ANGLE = 10.00 ANGLE OF ATTACK = 10.00 MACH NO = 25.00 P / P FPEE-STREAM AT PLANE ANGLES 150 . 180. S/RN L/RN C. 30 . 60. 90 . 120. 1.297 .730 152.229 140.865 113.431 83.400 60.421 47.223 43.052 .891 110.799 101.852 80.583 58.157 41.612 32.343 29.451 1.461 1.124 103.071 37.469 94.293 73.778 52.694 29.106 26.539 1.698 25.052 1.984 1.405 95.398 86.903 67.447 48.165 34.653 27.307 85.540 78.413 30.983 25.041 23.390 2.374 1.789 60.081 42.629 72.184 54.427 38.209 27.972 23.072 21.741 2.751 2.160 80.238 75.294 20.225 3.225 2.628 66.610 48.848 33.807 24.877 21.128 19.150 18.661 30.440 3.720 3.115 72.694 63.322 45.081 22.184 3.536 72 775 61.375 42.781 28.142 20.321 17.594 17.289 4.147 72.829 61.426 40.996 26.126 18.561 16.140 15.914 4.641 4.022 4.431 74.412 61.869 40.037 24.820 17.324 15.159 15.004 5.056 63.088 14.292 76.873 39.415 23.641 16.157 14.165 5.527 4.894 79.501 5.981 5.341 54,758 39.180 22.763 15.246 13.372 13.441 81.763 66.326 39.202 22.195 14.621 12.746 12.863 6.357 5.712 21.675 84.556 68.185 39.404 14.014 12.113 12.231 6.781 b.129 21.317 1.3.565 11.653 7.131 69.871 39.690 11.740 6.474 87.173 7.525 6.862 90.424 71.868 40.117 20.977 13.103 11.200 11.240 12.702 7.237 93.712 74.119 40.622 20.706 10.823 10.823 7.905 10.526 7.549 96.374 76.198 41.099 20.516 12.403 10.545 8.223 78.735 20.332 12.102 10.26 10.238 8.584 7.905 99.195 41,696 8.889 8.205 101.296 80.939 42.238 20.202 11.878 10.042 10.031 11.647 83.452 42.907 20.079 9.807 9.819 9.241 8.552 103.341 43.620 9.591 85.823 19.984 红.440 9.589 9.628 8.896 104.940 9.410 9.891 9.192 105.959 87.591 44.277 19.918 11.272 9.473 10.245 9.540 106.759 89.635 45.106 19.854 11.082 9.210 9.294 9.843 107.148 91.074 45.879 19.808 10.919 9.044 9.141 10.552 92.457 46.865 19.763 10.727 8.858 8.960 10.917 10.203 107.320 10.574 107.260 93.496 47.948 19.727 10.532 8.679 8.778 11.294 94.097 48.958 19.702 10.363 8.533 8.625 11.628 1:0.903 107.:061 94.466 50.228 19.678 10.167 8.371 8.454 12.034 11.302 106.674 9.998 12.398 94.516 19.659 8.241 8.319 11.651 106.220 51.388 94.294 8.100 8.182 12.843 12.099 105.606 52.798 19.641 9.801 9.604 93.798 54.223 7.967 8.073 13.308 12.558 105.018 19.628 7.858 12.970 104.622 93.139 55.427 19.521 9.430 8.003 13.727 13.479 104.343 92.159 56.778 19.622 9.221 7.728 7 . 947 14.244 91.208 7.610 7.915 14.715 13.943 104.256 57.858 19.638 9.034 14.522 104.292 90.106 58.981 19.687 8.809 7.458 7.886 15.303 7 - 852 15.939 15.148 104.428 89.149 59.892 19.783 8.579 7.287 7.809 16.523 88.519 19.921 7.123 15.724 104.580 60.446 8.379 60.797 6.921 7.738 17.237 16.426 104.746 88-056 20.161 8.152 87.863 20.451 7.963 6.738 7.659 17 -: 880 17.050 104.840 60.850 7.555 20.909 7.754 6.517 18.678 17.845 104.910 87.835 60.651 7--448 18 692 104 959 87.951 60.199 21.508 7.570 6.286 19.537 19.477 104.966 88.117 59.635 22.138 7.439 6.082 7:363 20.335 7.275

22.999

7.321

5.839

21.351

28.478 104.877

88.359

58.839

М	1CH NO =	25.00	CONE ANGI	LE = 10.00	ANGL	E OF AT:T:	ACK = 1	.0.00
		<b>b</b> /	P FREE-S	TREAM AT	PI.ANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150 •	180.	SZRN
<b>L</b> /,(II	0,4	004	000	<b>70 </b>	1200	1700	1000	GV 1311
21.422	104.705	88.605	58.118	23.812	7.246	5.625	7.201	22.309
	104.461	88.922	57.314	24.788	7.184	5.373	7.101	23.551
	104.277	89.170	56.698	25.582	7.154	5.159	5.987	24.735
	104.157	89.372	56.113	26.368	7.147	4.928	5.815	26.206
26.783	104.152	89.447	55.633	26.965	7.165	4.726	5.613	27.753
28.150	104.194	89.447	55.276	27.327	7 - 195	4.576	6.430	29.142
29.821	104.299	89.407	54.896	27.593	7 - 250	4.423	6.215	30.839
31-320	104.431	89.362	54.601	27.720	7.518	4.310	6.036	32.361
	104.599	89.307	54.299	27.786	7.423	4.197	5.832	34.218
	164.750	89-265	54.044	27.772	7.551	4.101	5.634	36.167
	104.853	89.252	53.860	27.687	7.673	4.030	5.469	37.914
	104.942	89.270	53.684	27.497	7-825	3.959	5.285	40.047
	104.998	89.313	53.556	27.277	7-960	3.904	5.135	41.959
	105.041	89.382	53.421	26.997	8-116	3.847	4.972	44.296
	105.067	89.465	53.293	26.730	8 • 263	3.793	4.823	46.751
	105.082	89154.1	53.194	26.518	8 377	3.749	4.706	48.957
	105.997	89.628	53.095	26.283	8.487	3.698	4.581	51.654
_	105.110	89.698	53.027	26.088	8.564	3.656	4.480	54.077 57.041
	105-124	89.767	52 • 971	25.869	8-641	3.696	4.368 4.261	50.159
	105.134	89.821 89.855	52.942 52.939	25•656 25•479	8•709 8•762	3.560 3.522	4.174	62.962
	105.140	89.881	52.963	25.277	8.816	3.482	4.077	66.391
	105.134	89.893	53.005	25.110	-8.e.853	3.450	3.999	69.473
	105.118	89.895	53.080	24.924	8.884	3.418	3.916	73.242
	105.096	89.887	53.181	24.747	8-904	3.388	3.839	77.208
-	105.071	89.875	53.285	24.601	8.913	3.365	3.778	80.771
	105.038	89.856	53.424	24.438	8-913	3.341	3.712	85.130
	105.008	89.836	53.554	24.304	8-907	3.322	3.657	89.045
	104.972	89.812	53.713	24.155	8 - 895	3.302	3.597	93.834
	104.937	89.785	53.878	24.015	8-881	3.284	3.539	98.871
1.01-277	104.908	89.763	54.020	23.903	8-065	3.27.0	3.492	103.396
	104.876	89.736	54.185	23.781	8840	3.255		108.928
111-617	104.851	89.714		23.683	8.815			113.896
117.598		89.589	54.481	23.579	8.784	3.231		119.969
	104.802	89.664	54.632	23.482	8-,750	3.218		126.354
	104.785	89.644	54• <del>7</del> 55	23.407	6.720	3.207		132.086
	104.767	89.621	54-891	23.326	8.684	3.194		139-091
	104.755		55.001	23.262	8.654	3.182		145.379
	104.742	89.581	55.122	23.194	8 • 618	3.169		153.062
158-139		89,561	55 • 235 ·	23.134	8.584	3.155		161.135
	104.726	89.545	55•326 55•424	23.087 23.038	8 • 555 8 • 522	3.144 3.130		168.381 177.233
	104.720	89.526 89.511	55.502	23.036	8.495	3.119		185.176
	104.717	89.495	55.587	22.962	8:465	3.119		194.87.8
201.406		89.480	55 • 665	22.929	8: 436	3.096		205.070
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MACH NO = 30.00 CONF ANGLE = 10.00 ANGLE OF ATTACK = 10.00

		P /	P FREE-S	STREAM AT	r PLANE	ANGLES		
L/RM	0 •	30 •	60.	90-	120.	150.	180.	SYPH
- ,	-							-
•730	218.573	202.236	162.795	119.636	86.621	67.691	61.681	1.298
		146.251		83.435	59.666	46.355	42.204	1.462
1.124	147.962	135.346	105.867	75.583	53.722	41.718	38.035	1.698
	1-34 - 996	122.869		67.901	48.931	38-687	35.548	2.035
	124.095	112.426	86.114	61.064	44.376	35.852	33.354	2.372
	113.768	102.005	76.624	53.711	39.383	32.605	30.780	2.813
	107.070	94.529	69.038	47.605	34.987	29.812	28.615	3.290
	104.019	90.584	64.465	43.521	31.714	27.372	26.672	3.713
	103.094	88.247	60.686	39.731	28.638	24.893	24.390	4.209
	104.406	87.789	58.244	36.946	26.180	22.791	22.484	4.700
	106.806	88.540	56.947	35.129	24.453	21.424	21.226	5.110
	11-0.381	90.372	56.110	33.488	22.829	20.077	20.051	5.576
	114.124	92.789	55.809	32.269	21.562	18.906	19.023	6.024
	117.358	95.019	55+855	31.475	20.687	18,023	18.199	6.395
	121.398	97.651	56.148	30.743	19.832	17.135	17.302	6.812
	125.858	100.388	56.633	30.160	19.099	16.391	16.501	7.213
	1-29-907	102.927	57.157	29.754	18.545	15.854	15.907	7.544
	134.631	106.173	57.864	29.369	17.980	15.323	15.322	7.918
	139.081	109.688	58 - 647	29.057	17.495	14.870	14.843.	-
	142.520	112.832	59.364	28.835	17.136	14.529	14.501	8.584
	_	-	60.248	28.621	16.773	14.169	14.161	8-933
	148.841		51.188	28-450	15.453	13.839	13.865	9.277
	150.773		62.046	28.332	16.203	13.573	13.631	9-570
	152.444		63.122	28.219	15.926	13.278	13.371	9.913
		128.931	64.295	28-124	15.655	12.995	13.115	10.258
	154.036		65.393	28.054	15.423	12.761	12.894	10.558
		132.941	66.793	27.985	15.149	12.497	12.635	10.916
	154.129	-	68.334	27.928	14.872	12.245	12.376	11.283
	153.813		69.773	27-888	14.633	12.040	12.158	11.609
	153.212	_	71.585	27.847	14.356	11.813	11.915	12.005
	152.387		73.527	27.809	14.080	11.601	11.695	12.420
	151.590		75.258	27.780	13.845	11.432	11.531	12.792
	-	134.829	77.301	27.751	13.571	11.247	11.377	13.244
	150.043		79.320	27.726	13.290	11-068	11.264	13.719
13.385	149.702	132.434	80.993	27.712	13.039	10.912	11.196	14.149
13.910	149.561	130.789	82.824	27.718	12.734	10.719	11.140	14.682
14.474	149.637	129.164	84.455	27.763	12.416	10.504	11.096	15,254
14.992	149.821	127.940	85.621	27.851	12.135	10.298	11.052	15.781
15.638	1-50 - 101	126.836	86.613	28 - 0.37	11,802	10.032	10.977	16.437
16,313	150.357	126.152	87.151	28.337	11.474	9.749	10.871	17.122
-	-	125.865	87.259	28.709	11.199	9.494	19.757	17.739
	150.629		87.008	29.307	10.895	9.186	10.608	18.501
18-478	150.721	125.990	86.384	30.101	10.622	8 - 86-7	10.457	19.320
19.222	150.752		85.586	30-948	10.426	8.585	10.338	20.076
		126.599		32.121	10.243	8.249	10.218	21.036
				-				

1/RN	МД	CH NO =	30.00	CONE	ANG	LE	= 1	0 <b>. 0</b> (	)	ANGL	E OF	AT	TACK	= 1	0.00
1.213   150.370   127.031   83.204   33.446   10.107   7.903   10.107   22.097   23.492   149.723   127.899   81.111   35.992   9.957   7.245   9.829   24.411   149.521   128.208   80.215   37.185   9.937   6.905   9.592   24.411   24.913   149.521   128.208   80.215   37.185   9.937   6.905   9.592   25.852   27.746   149.528   128.343   38.690   9.982   6.381   9.041   28.731   29.384   149.674   128.281   78.493   38.690   9.982   6.381   9.041   28.731   23.645   150.118   128.109   77.568   39.453   10.134   5.954   8.423   32.141   32.645   150.118   128.109   77.568   39.453   10.406   5.663   7.880   35.615   34.925   150.347   128.033   77.196   39.453   10.406   5.663   7.880   35.615   36.498   150.525   128.002   76.6892   39.308   10.591   5.540   7.600   37.618   38.265   150.637   128.018   76.679   39.062   10.762   5.449   7.368   39.413   42.688   150.796   128.837   76.289   38.243   11.190   5.268   6.687   43.904   42.688   150.760   128.807   75.661   36.834   11.907   5.269   6.687   45.904   47.206   150.834   128.247   75.661   36.559   11.941   4.918   5.056   5.442   5.805   59.507   6.0757   150.892   128.817   75.661   36.559   11.941   4.918   5.004   5.650   5.544   5.850   59.507   77.707   150.899   128.807   75.667   34.492   12.250   4.636   5.352   76.245   77.579   35.441   12.253   4.680   5.650   5.724   62.261   6.083   150.925   128.941   75.693   35.692   12.214   4.795   5.724   62.261   6.083   150.925   128.941   75.693   35.492   12.250   4.636   5.352   77.492   6.084   77.508   77.707   150.899   128.807   75.693   35.692   12.214   4.795   5.724   62.261   6.083   150.932   128.759   77.808   35.492   12.250   4.451   4.870   93.237   95.453   150.548   128.791   75.693   35.492   12.250   4.451   4.870   93.237   95.453   150.548   128.791   75.693   35.692   12.214   4.795   5.748   6.608   5.754   6.608   6.627   6.627   6.627   6.627   6.627   6.627   6.627   6.627   6.627   6.627   6.627   6.627   6.627   6.627   6.627   6.627   6.627   6.627   6.627   6.6			p /	P FR	FF-S	TRE	ΔМ	AΤ	PL	ANE	ANGL	ES			
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42.688 150.786 128.185 76.289 38.243 11.190 5.268 6.873 43.904 44.721 150.813 128.428 76.138 37.897 11.370 5.200 6.687 45.968 47.206 150.834 128.417 75.975 37.524 11.558 5.125 6.489 48.491 49.819 150.853 128.546 75.838 37.172 11.715 5.051 6.309 51.144 52.166 150.871 128.644 75.742 36.883 11.827 4.989 6.165 53.528 55.035 150.892 128.749 75.661 36.559 11.941 4.918 6.004 56.442 58.054 150.910 128.830 75.617 36.246 12.043 4.850 5.850 59.507 60.767 150.921 128.881 75.661 35.985 12.121 4.795 5.724 62.261 64.083 150.925 128.921 75.639 35.692 12.196 4.735 5.584 65.629 67.572 150.917 128.940 75.707 35.411 12.253 4.680 5.454 69.172 70.707 150.899 128.943 75.798 35.182 12.290 4.636 5.352 72.355 74.539 150.868 128.933 76.916 34.926 12.316 4.590 5.241 76.246 78.570 150.828 128.913 76.116 34.680 12.324 4.546 5.138 80.339 82.190 150.788 128.893 76.918 34.926 12.316 4.590 5.241 76.246 78.570 150.828 128.791 76.944 33.861 12.270 4.475 4.961 88.510 91.272 150.686 128.823 76.739 34.035 12.290 4.441 4.870 93.237 95.453 150.593 128.755 77.428 33.494 12.199 4.360 4.632 108.126 100.758 150.593 128.755 77.428 33.494 12.199 4.360 4.632 108.126 110.758 150.593 128.755 77.428 33.494 12.199 4.360 4.632 108.126 110.758 150.593 128.555 78.645 32.733 11.902 4.226 4.302 137.839 142.332 150.347 128.583 78.259 32.955 12.012 4.270 4.367 130.943 135.196 150.377 128.558 78.645 32.733 11.992 4.226 4.302 137.839 142.332 150.341 128.643 78.961 32.564 11.880 4.178 4.130 159.526 164.768 150.330 128.435 79.115 32.489 11.752 4.156 4.076 167.867 172.4137 150.331 128.463 79.945 32.489 11.750 4.158 4.076 167.867 172.4137 150.331 128.386 79.371 32.369 11.662 4.118 3.946 4.076 167.867 172.4137 150.331 128.386 79.371 32.369 11.662 4.118 3.946 194.083															
44.721       150.813       128.288       76.138       37.897       11.370       5.200       6.687       45.968         47.296       150.834       128.417       75.975       37.524       11.578       5.125       6.489       48.491         52.166       150.871       128.648       75.742       36.883       11.827       4.989       6.165       53.528         55.035       150.892       128.749       75.661       36.559       11.941       4.918       6.004       56.442         58.054       150.910       128.8830       75.617       36.246       12.043       4.850       5.850       59.507         60.757       150.921       128.881       75.617       36.246       12.043       4.850       5.850       59.507         64.083       150.925       128.940       75.617       35.985       12.121       4.795       5.724       62.261         67.572       150.891       128.940       75.707       35.411       12.253       4.680       5.454       69.172         70.707       150.889       128.943       75.798       35.182       12.290       4.636       5.352       72.355         74.539       150.868       128.937															
47.206       150.834       120.417       75.975       37.524       11.558       5.125       6.489       48.491         49.819       150.853       128.546       75.975       37.524       11.558       5.051       6309       51.144         52.466       150.871       128.648       75.742       36.883       11.827       4.989       6.165       53.528         55.035       150.892       128.749       75.661       36.559       11.941       4.918       5.004       56.042         60.767       150.921       128.881       75.617       36.246       12.043       4.850       5.850       59.507         60.767       150.921       128.881       75.617       36.246       12.043       4.850       5.850       59.507         60.767       150.921       128.881       75.617       35.624       12.196       4.795       5.724       62.261         67.572       150.917       128.891       75.639       35.692       12.196       4.795       5.454       69.472         70.707       150.889       128.943       75.793       35.182       12.290       4.636       5.352       72.355         74.539       150.888       128.943															
49.819       150.863       128.546       75.838       37.172       11.715       5.051       6.309       51.144         52.166       150.871       128.648       75.742       36.883       11.827       4.989       6.165       53.528         55.035       150.892       128.749       75.661       36.559       11.941       4.918       6.004       56.442         58.054       150.910       128.881       75.661       35.985       12.121       4.795       5.850       59.507         60.757       150.921       128.981       75.6610       35.985       12.121       4.795       5.724       62.261         64.083       150.925       128.921       75.639       35.692       12.196       4.735       5.584       69.172         70.707       150.891       128.940       75.707       35.411       12.253       4.680       5.352       72.355         74.539       150.868       128.933       75.940       34.926       12.316       4.546       5.138       80.339         82.190       150.788       128.891       76.507       34.261       12.307       4.546       5.138       80.339         82.190       150.682       128.791															
52.166       150.871       128.648       75.742       36.883       11.827       4.989       6.165       53.528         55.035       150.892       128.749       75.661       36.559       11.941       4.918       6.004       56.442         58.054       150.910       128.880       75.617       36.246       12.013       4.850       5.850       59.507         60.757       150.921       128.881       75.617       36.246       12.014       4.850       5.850       59.507         64.083       150.925       128.921       75.639       35.692       12.196       4.735       5.584       69.629         67.572       150.917       128.940       75.707       35.411       12.253       4.680       5.454       69.172         70.707       150.899       128.943       75.798       35.182       12.200       4.636       5.352       72.357         74.539       150.869       128.933       75.940       34.926       12.316       4.590       5.241       76.346         78.570       150.888       128.913       76.163       34.680       12.324       4.546       5.138       80.339         82.190       150.737       128.858							_								
55.035         150.892         128.749         75.661         36.559         11.941         4.918         6.004         56.442           58.054         150.910         128.830         75.617         36.246         12.043         4.850         5.850         59.507           60.757         150.921         128.881         75.610         35.985         12.121         4.795         5.724         62.261           64.083         150.925         128.940         75.707         35.411         12.253         4.680         5.454         69.172           70.707         150.899         128.943         75.798         35.182         12.290         4.636         5.352         72.355           74.539         150.888         128.993         75.940         34.926         12.316         4.590         5.241         76.246           78.570         150.828         128.893         75.940         34.926         12.316         4.590         5.241         76.246           78.570         150.828         128.893         76.116         34.680         12.324         4.546         5.138         80.339           82.190         150.788         128.893         76.739         34.251         12.324         <	49.07.3	150.055	128.548												
58.054       150.910       128.830       75.617       36.246       12.043       4.850       5.850       59.507         60.767       150.921       128.881       75.610       35.985       12.121       4.795       5.724       62.261         64.083       150.925       128.940       75.639       35.692       12.196       4.735       5.584       65.629         67.572       150.917       128.940       75.707       35.411       12.253       4.680       5.454       69.172         70.707       150.899       128.943       75.798       35.182       12.316       4.590       5.241       76.246         78.570       150.828       128.913       76.116       34.680       12.316       4.590       5.241       76.246         78.570       150.828       128.890       76.288       34.478       12.320       4.512       5.054       84.016         86.617       150.788       128.858       76.507       34.251       12.307       4.475       4.961       88.510         91.272       150.686       128.823       76.739       34.035       12.290       4.41       4.870       93.237         95.453       150.593       128.753	22 • 100	150 • 0 T L	120.749												56.442
60.757 150.921 128.881 75.610 35.985 12.121 4.795 5.724 62.261 64.083 150.925 128.921 75.639 35.692 12.196 4.735 5.584 65.629 67.572 150.917 128.940 75.707 35.411 12.253 4.680 5.454 69.172 70.707 150.899 128.943 75.798 35.182 12.290 4.636 5.352 72.355 74.539 150.888 128.913 75.940 34.926 12.316 4.590 5.241 76.246 78.570 150.828 128.913 76.116 34.680 12.324 4.546 5.138 80.339 82.190 150.788 128.890 76.288 34.478 12.320 4.512 5.054 84.016 86.617 150.737 128.858 76.507 34.251 12.307 4.475 4.961 88.510 91.272 150.686 128.823 76.739 34.035 12.290 4.441 4.870 93.237 95.453 150.542 128.791 76.944 33.861 12.270 4.415 4.796 97.482 100.563 150.593 128.753 77.187 33.6671 12.239 4.386 4.712 102.671 105.935 150.548 128.715 77.428 33.494 12.199 4.360 4.632 108.126 110.758 150.542 128.647 77.860 33.202 12.111 4.314 4.494 119.008 122.846 150.442 128.651 78.259 32.955 12.012 4.270 4.425 125.298 128.405 150.475 128.553 78.259 32.955 12.012 4.270 4.367 130.943 135.196 150.370 128.5518 78.645 32.838 11.957 4.246 4.302 137.839 142.332 150.370 128.5518 78.645 32.838 11.957 4.246 4.302 137.839 142.332 150.370 128.5518 78.645 32.838 11.957 4.246 4.302 137.839 142.332 150.370 128.5518 78.645 32.838 11.957 4.246 4.302 137.839 142.332 150.370 128.5518 78.645 32.838 11.957 4.246 4.302 137.839 142.332 150.370 128.5518 78.645 32.838 11.957 4.246 4.302 137.839 142.332 150.370 128.5518 78.645 32.838 11.957 4.246 4.302 137.839 142.332 150.370 128.5518 78.645 32.838 11.957 4.246 4.302 137.839 142.332 150.370 128.5518 78.645 32.838 11.957 4.246 4.302 137.839 142.332 150.370 128.5518 78.645 32.838 11.957 4.246 4.302 137.839 142.332 150.370 128.435 79.115 32.488 11.752 4.156 4.076 167.867 172.437 150.331 128.445 79.238 12.429 11.710 4.138 4.076 167.867 172.437 150.331 128.346 79.371 32.349 11.662 4.118 3.986 184.487 199.586 150.314 128.386 79.371 32.369 11.662 4.118 3.986 184.487 199.586 150.314 128.386 79.371 32.3316 11.667 4.099 3.9942 194.083															
64.083 150.925 128.921 75.639 35.692 12.196 4.735 5.584 65.629 67.572 150.917 128.940 75.707 35.411 12.253 4.680 5.454 69.172 70.707 150.899 128.943 75.798 35.182 12.290 4.636 5.352 72.355 74.539 150.868 128.933 75.940 34.926 12.316 4.590 5.241 76.246 78.570 150.828 128.991 76.116 34.680 12.324 4.546 5.138 80.339 82.190 150.788 128.890 76.288 34.478 12.320 4.512 5.054 84.016 86.617 150.737 128.858 76.507 34.251 12.307 4.475 4.961 88.510 91.272 150.686 128.823 76.739 34.035 12.290 4.441 4.870 93.237 95.453 150.542 128.791 76.944 33.861 12.270 4.441 4.870 93.237 95.453 150.593 128.753 77.187 33.671 12.239 4.386 4.712 102.671 105.935 150.548 128.715 77.428 33.494 12.199 4.360 4.632 108.126 110.758 150.512 128.684 77.808 33.202 12.111 4.314 4.494 119.008 122.846 150.442 128.612 78.080 33.202 12.111 4.314 4.494 119.008 122.846 150.442 128.512 78.080 33.202 12.111 4.314 4.494 119.008 128.405 150.417 128.583 78.259 32.955 12.012 4.270 4.367 130.943 135.196 150.370 128.518 78.645 32.733 11.902 4.222 4.239 145.085 148.734 150.355 128.492 78.796 32.651 11.856 4.202 4.187 151.586 150.541 128.463 78.961 32.488 11.957 4.246 4.302 137.839 142.332 150.370 128.518 78.645 32.733 11.902 4.222 4.239 145.085 150.417 128.463 78.966 32.488 11.957 4.246 4.302 137.839 142.332 150.370 128.518 78.645 32.733 11.902 4.222 4.239 145.085 150.471 128.463 78.966 32.488 11.957 4.246 4.302 137.839 142.332 150.370 128.518 78.645 32.733 11.902 4.222 4.239 145.085 164.768 150.331 128.445 79.238 32.429 11.710 4.138 4.033 175.350 181.135 150.317 128.386 79.371 32.369 11.662 4.118 3.986 184.487 190.586 150.314 128.386 79.371 32.369 11.662 4.118 3.986 184.487 190.586 150.314 128.362 79.495 32.316 11.6617 4.099 3.942 194.083															
67.572 150.917 128.940 75.707 35.411 12.253 4.680 5.454 69.172 70.707 150.899 128.943 75.798 35.182 12.290 4.636 5.352 72.355 74.539 150.868 128.933 75.940 34.926 12.316 4.590 5.241 76.246 78.570 150.828 128.913 76.116 34.680 12.324 4.546 5.138 80.339 82.190 150.788 128.890 76.288 34.478 12.320 4.512 5.054 84.016 86.617 150.737 128.858 76.507 34.251 12.307 4.475 4.961 88.510 91.272 150.686 128.823 76.739 34.035 12.290 4.441 4.870 93.237 95.453 150.542 128.791 76.944 33.861 12.270 4.415 4.796 97.482 100.563 150.593 128.753 77.187 33.671 12.239 4.386 4.712 102.671 105.935 150.548 128.715 77.428 33.494 12.199 4.360 4.632 108.126 110.758 150.512 128.684 77.631 33.354 12.160 4.339 4.567 113.024 116.652 150.475 128.647 77.860 33.202 12.111 4.314 4.494 119.008 122.846 150.442 128.661 77.860 33.202 12.111 4.314 4.494 119.008 122.846 150.432 128.550 78.458 32.838 11.957 4.246 4.302 137.839 142.332 150.370 128.5518 78.645 32.733 11.902 4.222 4.239 145.085 148.734 150.355 128.492 78.796 32.651 11.856 4.202 4.187 151.586 156.554 150.341 128.463 78.961 32.564 11.803 4.178 4.130 159.526 164.768 150.330 128.435 79.115 32.488 11.752 4.156 4.076 167.867 172.137 150.323 128.441 79.238 32.429 11.710 4.138 4.033 175.350 181.135 150.317 128.386 79.371 32.369 11.662 4.118 3.986 184.487 190.586 150.314 128.386 79.371 32.369 11.662 4.118 3.986 184.487	C 097	150 - 521	128.921												
70.707 150.899 128.943 75.798 35.182 12.290 4.636 5.352 72.355 74.539 150.868 128.933 75.940 34.926 12.316 4.590 5.241 76.246 78.570 150.828 128.913 76.116 34.680 12.324 4.546 5.138 80.339 82.190 150.788 128.890 76.288 34.478 12.320 4.512 5.054 84.016 86.617 150.737 128.858 76.507 34.251 12.307 4.475 4.961 88.510 91.272 150.686 128.823 76.739 34.035 12.290 4.441 4.870 93.237 95.453 150.542 128.791 76.944 33.861 12.270 4.415 4.796 97.482 100.563 150.593 128.753 77.187 33.671 12.239 4.386 4.712 102.671 105.935 150.548 128.715 77.428 33.494 12.199 4.360 4.632 108.126 110.758 150.512 128.684 77.631 33.354 12.160 4.339 4.567 113.024 116.652 150.475 128.647 77.860 33.202 12.111 4.314 4.494 119.008 122.846 150.442 128.612 78.080 33.064 12.059 4.290 4.425 125.298 128.405 150.512 128.583 78.259 32.955 12.012 4.270 4.367 130.943 135.196 150.392 128.550 78.458 32.838 11.957 4.246 4.302 137.839 142.332 150.370 128.518 78.645 32.733 11.902 4.220 4.239 145.085 148.734 150.355 128.492 78.706 32.651 11.803 4.202 4.118 15.586 150.331 128.4435 79.115 32.488 11.752 4.156 4.178 4.130 159.526 164.768 150.331 128.435 79.115 32.488 11.752 4.156 4.076 167.867 172.437 150.323 128.4435 79.115 32.488 11.752 4.156 4.076 167.867 172.437 150.323 128.4435 79.115 32.488 11.752 4.156 4.076 167.867 172.437 150.323 128.435 79.371 32.369 11.662 4.118 3.986 184.487 190.586 150.314 128.386 79.371 32.369 11.662 4.118 3.986 184.487 190.586 150.314 128.386 79.371 32.369 11.662 4.118 3.986 184.487 190.586 150.314 128.386 79.371 32.369 11.662 4.118 3.986 184.487 190.586 150.314 128.386 79.371 32.356 11.661 4.099 3.942 194.083	67 67-2	150.917	128.940												
74.539 150.868 128.933 75.940 34.926 12.316 4.590 5.241 76.246 78.570 150.828 128.913 76.116 34.680 12.324 4.546 5.138 80.339 82.190 150.788 128.890 76.288 34.478 12.320 4.512 5.054 84.016 86.617 150.737 128.858 76.507 34.251 12.307 4.475 4.961 88.510 91.272 150.686 128.823 76.739 34.035 12.290 4.441 4.870 93.237 95.453 150.542 128.791 76.944 33.861 12.270 4.415 4.796 97.482 100.563 150.593 128.753 77.187 33.671 12.239 4.386 4.712 102.671 105.935 150.548 128.715 77.428 33.494 12.199 4.360 4.632 108.126 110.758 150.512 128.684 77.631 33.354 12.160 4.339 4.567 113.024 116.652 150.475 128.647 77.860 33.202 12.111 4.314 4.494 119.008 122.846 150.442 128.612 78.080 33.064 12.059 4.290 4.425 125.298 128.405 150.392 128.550 78.458 32.838 11.957 4.246 4.302 137.839 142.332 150.370 128.518 78.645 32.733 11.902 4.226 4.367 130.948 148.734 150.355 128.492 78.864 32.838 11.957 4.226 4.302 137.839 145.085 148.734 150.355 128.492 78.861 32.651 11.856 4.202 4.187 151.586 156.554 150.341 128.463 78.961 32.564 11.803 4.178 4.130 159.526 164.768 150.330 128.435 79.115 32.488 11.752 4.156 4.002 137.837 172.437 150.323 128.442 79.238 32.429 11.710 4.138 4.033 175.350 181.135 150.317 128.386 79.371 32.369 11.662 4.118 3.986 184.487 190.586 150.314 128.362 79.495 32.316 11.6617 4.099 3.942 194.083 190.586 150.314 128.386 79.371 32.369 11.662 4.118 3.986 184.487 190.586 150.314 128.362 79.495 32.316 11.6617 4.099 3.942 194.083	70 707	450 - 917	128-94-3										5.	352	72.355
78.570       150.828       128.913       76.116       34.680       12.324       4.546       5.138       80.339         82.190       150.788       128.890       76.288       34.478       12.320       4.512       5.054       84.016         86.617       150.737       128.858       76.507       34.251       12.307       4.475       4.961       88.510         91.272       150.686       128.823       76.739       34.035       12.290       4.441       4.870       93.237         95.453       150.542       128.753       77.187       33.671       12.239       4.441       4.796       97.482         100.563       150.593       128.715       77.428       33.494       12.199       4.360       4.632       108.126         110.758       150.512       128.684       77.631       33.354       12.160       4.339       4.567       113.024         122.846       150.442       128.612       78.080       33.064       12.059       4.290       4.425       125.298         128.405       150.417       128.583       78.259       32.955       12.012       4.270       4.367       130.943         135.196       150.332       128.518<	76 530	150.868	128.933										5.	241	76.246
82.190       150.788       128.890       76.288       34.478       12.320       4.512       5.054       84.016         86.617       150.737       128.858       76.507       34.251       12.307       4.475       4.961       88.510         91.272       150.686       128.823       76.739       34.035       12.290       4.441       4.870       93.237         95.453       150.642       128.791       76.944       33.861       12.270       4.415       4.796       97.482         100.563       150.593       128.753       77.187       33.671       12.239       4.386       4.712       102.671         105.935       150.548       128.715       77.428       33.494       12.199       4.360       4.632       108.126         110.758       150.512       128.684       77.631       33.354       12.160       4.339       4.567       113.024         122.846       150.475       128.684       77.860       33.202       12.111       4.314       4.494       119.008         122.846       150.447       128.583       78.259       32.955       12.012       4.270       4.367       130.943         128.405       150.370       128.51	78 570	150.828	128.913										5.	138	80.339
86.617       150.737       128.858       76.507       34.251       12.307       4.475       4.961       88.510         91.272       150.686       128.823       76.739       34.035       12.290       4.441       4.870       93.237         95.453       150.542       128.791       76.944       33.861       12.270       4.415       4.796       97.482         100.563       150.593       128.715       77.187       33.671       12.239       4.386       4.712       102.671         105.935       150.548       128.715       77.428       33.494       12.199       4.360       4.632       108.126         110.758       150.512       128.684       77.631       33.354       12.160       4.339       4.567       113.024         116.652       150.475       128.647       77.860       33.202       12.111       4.314       4.494       119.008         128.46       150.477       128.583       78.259       32.955       12.012       4.270       4.367       130.943         135.196       150.372       128.518       78.458       32.838       11.957       4.246       4.302       137.839         142.332       150.370       128.5	0 1 Q 1	150.788	128-890				-								
91.272 150.686 128.823 76.739 34.035 12.290 4.441 4.870 93.237 95.453 150.642 128.791 76.944 33.861 12.270 4.415 4.796 97.482 100.563 150.593 128.753 77.187 33.671 12.239 4.386 4.712 102.671 105.935 150.548 128.715 77.428 33.494 12.199 4.360 4.632 108.126 110.758 150.512 128.684 77.631 33.354 12.160 4.339 4.567 113.024 116.652 150.475 128.647 77.860 33.202 12.111 4.314 4.494 119.008 122.846 150.442 128.612 78.080 33.064 12.059 4.290 4.425 125.298 128.405 150.417 128.583 78.259 32.955 12.012 4.270 4.367 130.943 135.196 150.392 128.550 78.458 32.838 11.957 4.246 4.302 137.839 142.332 150.370 128.518 78.645 32.733 11.902 4.222 4.239 145.085 148.734 150.355 128.492 78.796 32.651 11.856 4.202 4.187 151.586 156.554 150.341 128.463 78.961 32.564 11.803 4.178 4.130 159.526 164.768 150.330 128.435 79.115 32.488 11.752 4.156 4.076 167.867 172.437 150.323 128.412 79.238 32.429 11.710 4.138 4.033 175.350 181.135 150.317 128.386 79.371 32.369 11.662 4.118 3.986 184.487 190.586 150.314 128.362 79.495 32.316 11.617 4.099 3.942 194.083	96-617	150-700	128 858										4.	961	88.510
95.453 150.542 128.791 76.944 33.861 12.270 4.415 4.796 97.482 100.563 150.593 128.753 77.187 33.671 12.239 4.386 4.712 102.671 105.935 150.548 128.715 77.428 33.494 12.199 4.360 4.632 108.126 110.758 150.512 128.684 77.631 33.354 12.160 4.339 4.567 113.024 116.652 150.475 128.647 77.860 33.202 12.111 4.314 4.494 119.008 122.846 150.442 128.612 78.080 33.064 12.059 4.290 4.425 125.298 128.405 150.417 128.583 78.259 32.955 12.012 4.270 4.367 130.943 135.196 150.392 128.550 78.458 32.838 11.957 4.246 4.302 137.839 142.332 150.370 128.518 78.645 32.733 11.902 4.222 4.239 145.085 148.734 150.355 128.492 78.796 32.651 11.856 4.202 4.187 151.586 156.554 150.341 128.463 78.961 32.564 11.803 4.178 4.130 159.526 164.768 150.323 128.435 79.115 32.488 11.752 4.156 4.076 167.867 172.437 150.323 128.435 79.115 32.488 11.752 4.156 4.076 167.867 172.437 150.323 128.435 79.371 32.369 11.662 4.118 3.986 184.487 190.586 150.314 128.386 79.371 32.369 11.662 4.118 3.986 184.487 190.586 150.314 128.386 79.371 32.369 11.662 4.118 3.986 184.487 190.586 150.314 128.386 79.371 32.369 11.667 4.099 3.942 194.083	04 - 272	150.686	128 823										4.	87-0	93.237
100.563 150.593 128.753 77.187 33.671 12.239 4.386 4.712 102.671 105.935 150.548 128.715 77.428 33.494 12.199 4.360 4.632 108.126 110.758 150.512 128.684 77.631 33.354 12.160 4.339 4.567 113.024 116.652 150.475 128.647 77.860 33.202 12.111 4.314 4.494 119.008 122.846 150.442 128.612 78.080 33.064 12.059 4.290 4.425 125.298 128.405 150.417 128.583 78.259 32.955 12.012 4.270 4.367 130.943 135.196 150.392 128.550 78.458 32.838 11.957 4.246 4.302 137.839 142.332 150.370 128.518 78.645 32.733 11.902 4.222 4.239 145.085 148.734 150.355 128.492 78.796 32.651 11.856 4.202 4.187 151.586 156.554 150.341 128.463 78.961 32.564 11.803 4.178 4.130 159.526 164.768 150.330 128.435 79.115 32.488 11.752 4.156 4.076 167.867 172.437 150.323 128.412 79.238 32.429 11.710 4.138 4.033 175.350 181.135 150.317 128.386 79.371 32.369 11.662 4.118 7.986 184.487 190.586 150.314 128.386 79.475 32.316 11.617 4.099 3.942 194.083	71 •: L C E	150.642	128.791										4.	796	97.482
105.935       150.548       128.715       77.428       33.494       12.199       4.360       4.632       108.126         110.758       150.512       128.684       77.631       33.354       12.160       4.339       4.567       113.024         116.652       150.475       128.647       77.860       33.202       12.111       4.314       4.494       119.008         122.846       150.442       128.612       78.080       33.064       12.059       4.290       4.425       125.298         128.405       150.417       128.583       78.259       32.955       12.012       4.270       4.367       130.943         135.196       150.392       128.550       78.458       32.838       11.957       4.246       4.302       137.839         142.332       150.370       128.518       78.645       32.733       11.902       4.222       4.239       145.085         148.734       150.355       128.492       78.796       32.651       11.856       4.202       4.187       151.586         156.554       150.341       128.435       79.115       32.488       11.752       4.156       4.076       167.867         172.437       150.323 <t< td=""><td>100.563</td><td>150.593</td><td>128.753</td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td>4.3</td><td>886</td><td>4.</td><td>712</td><td>102.671</td></t<>	100.563	150.593	128.753			-					4.3	886	4.	712	102.671
110.758 150.512 128.684 77.631 33.354 12.160 4.339 4.567 113.024 116.652 150.475 128.647 77.860 33.202 12.111 4.314 4.494 119.008 122.846 150.442 128.612 78.080 33.064 12.059 4.290 4.425 125.298 128.405 150.417 128.583 78.259 32.955 12.012 4.270 4.367 130.943 135.196 150.392 128.550 78.458 32.838 11.957 4.246 4.302 137.839 142.332 150.370 128.518 78.645 32.733 11.902 4.222 4.239 145.085 148.734 150.355 128.492 78.796 32.651 11.856 4.202 4.187 151.586 156.554 150.341 128.463 78.961 32.564 11.803 4.178 4.130 159.526 164.768 150.330 128.435 79.115 32.488 11.752 4.156 4.076 167.867 172.437 150.323 128.412 79.238 32.429 11.710 4.138 4.033 175.350 181.135 150.317 128.386 79.371 32.369 11.662 4.118 7.986 184.487 190.586 150.314 128.386 79.495 32.316 11.617 4.099 3.942 194.083	105-200	150.548	128.715										4.	632	108.126
116.652       150.475       128.647       77.860       33.202       12.111       4.314       4.494       119.008         122.846       150.442       128.612       78.080       33.064       12.059       4.290       4.425       125.298         128.405       150.417       128.583       78.259       32.955       12.012       4.270       4.367       130.943         135.196       150.392       128.550       78.458       32.838       11.957       4.246       4.302       137.839         142.332       150.370       128.518       78.645       32.733       11.902       4.222       4.239       145.085         148.734       150.355       128.492       78.796       32.651       11.856       4.202       4.187       151.586         156.554       150.341       128.463       78.961       32.564       11.803       4.178       4.130       159.526         164.768       150.330       128.435       79.115       32.488       11.752       4.156       4.076       167.867         172.437       150.323       128.412       79.238       32.429       11.710       4.138       4.033       175.350         181.135       150.314 <t< td=""><td>110.758</td><td>150.512</td><td>128.684</td><td>77</td><td></td><td></td><td></td><td></td><td></td><td></td><td>4.3</td><td>339</td><td>4.</td><td>567</td><td>113.024</td></t<>	110.758	150.512	128.684	77							4.3	339	4.	567	113.024
122.846       150.442       128.612       78.080       33.064       12.059       4.290       4.425       125.298         128.405       150.417       128.583       78.259       32.955       12.012       4.270       4.367       130.943         135.196       150.392       128.550       78.458       32.838       11.957       4.246       4.302       137.839         142.332       150.370       128.518       78.645       32.733       11.902       4.222       4.239       145.085         148.734       150.355       128.492       78.796       32.651       11.856       4.202       4.187       151.586         156.554       150.341       128.463       78.961       32.564       11.803       4.178       4.130       159.526         164.768       150.330       128.435       79.115       32.488       11.752       4.156       4.076       167.867         172.437       150.323       128.412       79.238       32.429       11.710       4.138       4.033       175.350         181.135       150.317       128.386       79.371       32.369       11.662       4.118       3.986       184.487         190.586       150.314 <t< td=""><td>116 652</td><td>150.475</td><td>128-647</td><td></td><td></td><td></td><td></td><td></td><td>12.</td><td>111</td><td>4.3</td><td>114</td><td>4.</td><td>494</td><td>119.008</td></t<>	116 652	150.475	128-647						12.	111	4.3	114	4.	494	119.008
128.405       150.417       128.583       78.259       32.955       12.012       4.270       4.367       130.943         135.196       150.392       128.550       78.458       32.838       11.957       4.246       4.302       137.839         142.332       150.370       128.518       78.645       32.733       11.902       4.222       4.239       145.085         148.734       150.355       128.492       78.796       32.651       11.856       4.202       4.187       151.586         156.554       150.341       128.463       78.961       32.564       11.803       4.178       4.130       159.526         164.768       150.330       128.435       79.115       32.488       11.752       4.156       4.076       167.867         172.437       150.323       128.412       79.238       32.429       11.710       4.138       4.033       175.350         181.135       150.317       128.386       79.371       32.369       11.662       4.118       3.986       184.487         190.586       150.314       128.362       79.495       32.316       11.617       4.099       3.942       194.083							-						4.	425	125,298
135.196       150.392       128.550       78.458       32.838       11.957       4.246       4.302       137.839         142.332       150.370       128.518       78.645       32.733       11.902       4.222       4.239       145.085         148.734       150.355       128.492       78.796       32.651       11.856       4.202       4.187       151.586         156.554       150.341       128.463       78.961       32.564       11.803       4.178       4.130       159.526         164.768       150.330       128.435       79.115       32.488       11.752       4.156       4.076       167.867         172.437       150.323       128.412       79.238       32.429       11.710       4.138       4.033       175.350         181.135       150.317       128.386       79.371       32.369       11.662       4.118       3.986       184.487         190.586       150.314       128.362       79.495       32.316       11.617       4.099       3.942       194.083											4.8	270			
142.332       150.370       128.518       78.645       32.733       11.902       4.222       4.239       145.085         148.734       150.355       128.492       78.796       32.651       11.856       4.202       4.187       151.586         156.554       150.341       128.463       78.961       32.564       11.803       4.178       4.130       159.526         164.768       150.330       128.435       79.115       32.488       11.752       4.156       4.076       167.867         172.437       150.323       128.412       79.238       32.429       11.710       4.138       4.033       175.350         181.135       150.317       128.386       79.371       32.369       11.662       4.118       3.986       184.487         190.586       150.314       128.362       79.495       32.316       11.617       4.099       3.942       194.083	135.196	150.392	128.550			3	2.8	38			4.2	246	4.	302	137.839
148.734       150.355       128.492       78.796       32.651       11.856       4.202       4.187       151.586         156.554       150.341       128.463       78.961       32.564       11.803       4.178       4.130       159.526         164.768       150.330       128.435       79.115       32.488       11.752       4.156       4.076       167.867         172.437       150.323       128.412       79.238       32.429       11.710       4.138       4.033       175.350         181.135       150.317       128.386       79.371       32.369       11.662       4.118       3.986       184.487         190.586       150.314       128.362       79.495       32.316       11.617       4.099       3.942       194.083	142-332	150.370	128.518												
156.554 150.341 128.463 78.961 32.564 11.803 4.178 4.130 159.526 164.768 150.330 128.435 79.115 32.488 11.752 4.156 4.076 167.867 172.437 150.323 128.412 79.238 32.429 11.710 4.138 4.033 175.350 181.135 150.317 128.386 79.371 32.369 11.662 4.118 3.986 184.487 199.586 150.314 128.362 79.495 32.316 11.617 4.099 3.942 194.083	148.734	150.355	128.492								4.2	202	4.	187	151.586
164.768 150.330 128.435 79.115 32.488 11.752 4.156 4.076 167.867 172.437 150.323 128.412 79.238 32.429 11.710 4.138 4.033 175.350 181.135 150.317 128.386 79.371 32.369 11.662 4.118 3.986 184.487 199.586 150.314 128.362 79.495 32.316 11.617 4.099 3.942 194.083	156-554	150.341	128-463	78							4.	L78			
172-137 150-323 128-412 79-238 32-429 11-710 4-138 4-033 175-350 181-135 150-317 128-386 79-371 32-369 11-662 4-118 3-986 184-487 199-586 150-314 128-362 79-495 32-316 11-617 4-099 3-942 194-083	164-768	150.330	128 - 439			3	2.4	88			4 . :	L5 6			
181.135 150.317 128.386 79.371 32.369 11.662 4.118 3.986 184.487 190.586 150.314 128.362 79.495 32.316 11.617 4.099 3.942 194.083	172-137	150.323	128.412						11.	710	-				-
190.586 150.314 128.362 79.495 32.316 11.617 4.099 3.942 194.083	181-139	150.317	128.386						11.	662	4.	118			
	190.586	150.314	128-362			3	2.3	16	11.	617					
					.608	3	2 • 2	71	11.	574.	4.	082	3	.902	2 204 • 161

## NSHC/HOL/TR 75~45

МД	CH NO =	3.50	CONE ANGL	E = 15.00	ANGL	E OF ATT	ACK = 10	• 00
			P FREE-ST	DEAM AT	PLANE	ANGLES		
4.4511	0	30·	60.	90.	120•	150 •	180.	S/RN-
L/RN	0-•	30 •	000	300				
.683	4.380	4.114	3.454	2.696	2-081	1.708	1.586	1.249
•784	3.827	3.579	2.970	2.288	1-•749		1.324	1.353
.879	3.858	3.600	2.972	2.279	1.738	_	1.317	1.451
1.016	3.891	3.623	2.975	2.270	1.727		1.309	1.593 1.747
1.165	3.896	3.622	2.964	2.258	1.720	1.408	1.309	1.957
1.367	3.874	3.595	2.932	2.231	1.706		1.311	2.138
1.542	3.847	3.567	2.900	2.202	1.689	1.401	1.311 1.308	2.332
1.729	3.821	3.538	2.869	2.173	1.668	1.393	1.304	2.536
1.927	3.804	3.517	2.842	2.144	1.647	1.383 1.374	1.300	2.806
2188	3.782	3.489	2.798	2.105	1.622	1.374	1.300	3.033
2.407	3.795	3.477	2.767	2.077	1.602	1.365	1.301	3.267
2.633	3.807	3.489	2.767	2.063	1.585 1.572	1.355	1.299	3.509
2.866	3.830	3.502	2.769	2.056	1.562	1.341	1.289	3.819
3.166	3.864	3.528	2.770	2•044 2•037	1:556	1.329		4.074
3.412		3.552		2.037	1.550	1.321		4.336
3.665		3.579		2.035	1-544	1.316		4.604
3.924	_	3.608		2.040	1.536	1:315		4.950
4.258		3.645		2.043	1.532	1.317		5.236
4.535		3.674 3.702	•	2.045	1.529	1.320		5.531
4.819		3.729		2.050	1-528	1.321		5.836
5.114		3.758		2.057				6.232
5.497		3.779		2.064		1.322		6.563
5.816		3.797		2.070	-	1.322	1.291	6.907
6.148 6.495		3.813		2.076		1.322	1.290	7.266
6.951		3.832		2.084		1.324	1.289	7.738
7.336		3.845		2.092	1539		1.290	8.137
7.742		3.856	_	2.098	1.541	1.332	1.294	8.556
8.169		3.866		2.105	1.543	1.337	1.301	8.999
8.738		3.876		2.112	1.546	1.343	1.312	9.588
9.224	1	3.882			<u>1</u> 548	1.348	1.320	10.091
9.739		3.88-7	3.051	2.126	1.550	1.352	1.328	10.624
10.287	-		3.061	2.134	1.553	1.356	1.335	
11.023		3.893		2.143	1.556		1.34-0	12.608
11.655		3.895		2.151	1.558	1.363	1.345 1.350	13.307
12.330		3.898		2.159	1.561	1.367	1.356	14.043
13.041				2.167	1:•564	1.371	1.364	15.010
13.975				2.177	1.568	1.375	1.37.0	15.822
14.76				2.185	1.570	1.377 1.379	1.37.4	16.672
15.580				2.192	1.572 1.575	1380	1.376	17.559
16.43				2.199	1-+578	1.382	1.37-7	18.726
17.56				2.207	1.580	1.383	1.377	19.707
18.51				2.213 2.219	1.582	1.385	1.378	20.733
19.50				2.223	1.585	1.387	1.380	21.806
20.54	0 4.235	3.89	3 3.095	6.660	1.4505	* 4 0 0 1	_,,,,	

М	/CH ИО =	3.50	CONE ANGL	E = 15.00	ANGL	E OF ATT	ACK = 1	10.00
		D /	P FREE-ST	REAM AT	PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150 ·	180.	SZRN
LZKN	U •	30 •	6 <b>u</b> •	90.	1500	190 •	100.	37 (11
21.903	4.236	3.893	3.093	2.228	1.588	1.389	1.384	23.217
23.049	4.237	3.892	3.091	2.232	1.590	1.390	1.386	
24.249	4.238	3.892	3.089	2.235	1.593	1.391	1.387	
25.503	4.238	3.892	3.087	2.237	1.596	1.392	1.388	
27.153	4.240	3.892	3.084	2.239	1.599	1.393	1.388	
28.541	4.240	3.893	3.081	2.240	1.602	1.394	1.388	
29.993	4.241	3.893	3.079	2.241	1.604	1.394	1.388	
31.513	4.242	3.893	3.077		1.607	1.395	1.388	
33.511	4.243	3.894	3.075	2.241	1.610	1.396	1.389	
35.193	4.243	3.894	3.073	2.0241	1.612	1.397	1.389	
36.952	4.244	3.895	3.072	2.241	1.615		1.389	
38.793	4.244	3.896	3.071	2.240	1.617		1.389	
41.215	4.245	3.896	3.069	2.239	1.619	1.398	1.388	43.211
43.253	4.245	3.897	3.068	2.238	1.621	1.398	1.387	45.321
45.386	4.245	3.897	3.068	2.237	1.623	1.398	1.387	47.529
47.618	4.245	3.898	3.067	2.236	1.625	1.399	1-387	49.839
50.553	4.245	3.898	3.067	2.234	1.626	1.399	1.387	52.878
53.024	4.244	3.898	3.067	2.233	1.628	1.399	1.387	55.437
55.610	4.244	3.899	3.067	2.232	1.629	1.399	1387	58.114
58.316	4.244	3.899	3.067	2 • 231	1.630	1-400	1.386	60.915
61.875	4.243	3.899	3.067	2.229	1.631	1.400	1.386	
64.871	4.243	3.899	3.068	2 • 228	1.632	1.400	1.385	67.701
68.006	4.243	3.900	3.068	2.226	1.633	1.400	1.385	
71.286	4.242	3.900	3.069	2.225	1.633	1.401	1.385	
7-5.601	4.242	3.900	3.070	2.224	1.634	1.401	1.385	
79.234	4.242	3.900	3.070	2.223	1.635	1.401	1384	
83.034	4.241	3.900	3.071	2.221	1.635	1.401	1.384	
87-010	4 • 241	3.900	3.072	2.220	1.635	1.402	1.384	
92.241	4.241	3.900	3.072	2.219	1.636	1.402	1.383	
96.643	4.241	3.900	3.073	2.218	1.636	1.402		100.594
101.249	4.240	3.900	3.074	2.217	1.636	1.402	-	105.362
106.068	4.240	3.899	3.074	2.216	1.636	1.403	_	110.352
112-406		3.899	3.075		1.63.6			116.913
117.741	4.240	3.899	3.076	2.215	1.636	1.403		122.436
123.322	4 • 240	3.899	3.076	2.214	1.636	1.403	-	128.214
129.161	4.240	3.899	3.077	2.213	1.636	1 • 40 4		134.259
136.841	4-248	3.899	3.077	2.213	1.636	1.404		142.210
143.304	4.240	3.899	3.078	2.212	1.636	1.404		148.901
150.066	4.240	3.899	3.078	2.212	1.636	1-404		155.901
157.139	4.240	3.899	3.078	2.211	1.636	1.405		163.224
166.442	4.240	3.899	3.079	2.211	1.636	1.405		172.856
174.272	4.240	3.899	3.079	2.211	1.636	1.405		180.961
182-463	4-240	3.899	3.079	2.210	1.636	1.405		189-441
191.031	4.241	3.899		2.210	1.636	1.405	-	198.312
202.301	4.241	3.899	3.079	2.210	1.636	1.405	7:● 2 い月	209.979

MA	7CH NO =	5.00	CONE ANGL	E = 15.0	O ANGL	E OF ATT	ACK = 10	•:00
		D /	P FREE-ST	PDEAM AT	PLANE	ANGLES		
	0			90.	120.	150.	180.	S/RN
L/RN	0•	30•	60.	90•	750.	1704	1000	
700	7.465	6-965	5-738	4.360	3.270	2.626	2.417	1.274
.708			5.166	3.882	2.892	2.318	2.134	1.407
•836	6 822	6.338	-	3.804	2.830	2.269	2.091	1.531
•956	6.777	6.279	5.086		2.759	2.220	2.049	1.703
1:•122	6.686	6.178	4.975	3.707		2.172	2.011	1.891
1304	6.565	6.049	4.843	3.597	2.684	2.119	1.970	2.096
1.501	6.442	5.921	4.709	3.480	2.601		1.925	2.314
1.712	6.338	5.809	4.587	3.367	2.516	2.062		2.545
1.935	6.274	5.728	4.• 487	3.266	2.434	2.005	1.879	
2.167	6.236	5.671	4.392	3.171	2.358	1.957	1.843	2.785
2.406	6.261	5.645	4.316	3.090	2.291	1.916	1.814	3.032
2-649	6.307	5.671	4.299	3.037		1.870	1.779	3.284
2:• 895	6.383	5-714	4 • 288	2.999		1.823	1.737	3.539
3.144	6.477	5.779		2.968		1.780	1.692	3.796
3.395	6.583	5.856	4.315	2.947		1.746	1.652	4.056
3.648	6.693	5.945	4.343	2.935		1.720	1.623	4.318
3-903	6-800	6.037	4.380	2.929	2.061	1.701	1.604	4.583
4.162	6.897	6131	4.424	2.927	2.042	1.684	1.593	4.850
4.423	6.984	6.220	4 • 470	2.928	2.028	1.668	1.586	5.121
4: 689		6.301	4.520	2.935	2.019	1.653	1.•577	5.396
4.960	-	6-374		2.946	2.013	1.637	1.566	5.676
5.236		6.441		2.958	2-008	1.621	1.551	5.962
5.519		6.502		2.972	2.003	1.608	1.535	6.255
5.810	_	6-559	4.730	2.985	1.998	1.598	1.518	6.556
6.110		6.612	4.781	3.001	1.993	1.592	1.505	6.867
6.421		6-660	4.829	3.018	1.991	1.589	1-497	7.189
6.745	25	6.701	4.5 875	3.035	1.990	1.589	1.495	7.525
7.083		6.734		3.052	1.990	1.591	1.498	7.875
7.438		6.760	4.961	3.070	1.991	1.592	1.505	8.243
		6.779		3.090	1.992	1.593	1.513	8.630
7.812		6.792		3.111	1.994	1.592	1-520	9.039
8.288		6.800		3.133	1.997	1.598	1.523	
8 - 627		6.803		3.156	2.000	1.589	1.524	9.934
9.073	_	6.804		-				
9.548				3.205	2.010	1.593	1.526	10.954
10.057		6.804	=		2.014	1.598	1.532	11.519
10.603		6.803		3.230		1.602	1.542	12.126
11.190		6.801		3.255	2.017	1.602	1.554	12.780
11.821		6.799		3.281	2.021			13.484
12.502		6.795	-	3.306	2.026	1.607	1.565 1.571	14.244
13.235		6.792		3.331	2.032	1.607		15.063
14.027		6.789		3.356	2.038	1.609	1.574 1.577	15.947
14.880		6.786		3.379	2.045	1.612		16.880
15.782		6.784		3-400	2.053	1.616	1.584	17.860
16.728		6-783		3.418	2.063	1.620	1.535	=
17.722		6.782		3.433	2.074	1.622	1.606	18.889
18.765	7.483	6.782	5.164	3.444	2.085	1.623	1.614	19.969

P / P FREE-STREAM AT PLANE ANGLES 150. 180. S/RN  20.087 7.486 6.781 5.155 3.455 2.098 1.624 1.617 21.337 21.248 7.488 6.781 5.147 3.462 2.109 1.626 1.616 22.540 21.248 7.491 6.781 5.140 3.466 2.121 1.629 1.617 23.803 22.468 7.491 6.782 5.133 3.469 2.131 1.632 1.621 25.129 23.750 7.493 6.782 5.133 3.469 2.131 1.632 1.621 25.129 25.096 7.496 6.783 5.126 3.470 2.142 1.635 1.625 26.522 25.096 7.499 6.784 5.120 3.469 2.151 1.637 1.628 27.986 26.509 7.499 6.784 5.120 3.469 2.151 1.637 1.628 27.986 27.994 7.501 6.786 5.114 3.468 2.160 1.639 1.627 29.523 27.994 7.503 6.787 5.109 3.465 2.169 1.641 1.624 31.137 29.553 7.503 6.787 5.109 3.465 2.169 1.644 1.621 32.834 31.192 7.505 6.789 5.105 3.462 2.177 1.644 1.621 32.834	MACH	1 NO =	5.00 C	NE ANGLE	= 15.00	) ANGL	E OF ATT	ACK = 10	• 0 0°
L/RN 0. 30. 60. 90. 120. 150. 180. S/RN  20.087 7.486 6.781 5.155 3.455 2.098 1.624 1.617 21.337  21.248 7.488 6.781 5.147 3.462 2.109 1.626 1.616 22.540  22.468 7.491 6.781 5.140 3.466 2.121 1.629 1.617 23.803  23.750 7.493 6.782 5.133 3.469 2.131 1.632 1.621 25.129  25.096 7.496 6.783 5.126 3.470 2.142 1.635 1.625 26.522  25.096 7.499 6.784 5.120 3.469 2.151 1.637 1.628 27.986  26.509 7.499 6.784 5.120 3.469 2.151 1.637 1.628 27.986  27.994 7.501 6.786 5.114 3.468 2.160 1.639 1.627 29.523  27.994 7.503 6.787 5.109 3.465 2.169 1.641 1.624 31.137  29.553 7.503 6.787 5.109 3.465 2.169 1.641 1.624 32.834  31.192 7.505 6.789 5.105 3.462 2.177 1.644 1.621 32.834				-n 070	SEAM AT	DI ANE	ANGLES		
L/RN       0.       30.       60.       90.       120.       133.         20.087       7.486       6.781       5.155       3.455       2.098       1.624       1.617       21.337         21.248       7.488       6.781       5.147       3.462       2.109       1.626       1.616       22.540         22.468       7.491       6.781       5.140       3.466       2.121       1.629       1.617       23.803         23.750       7.493       6.782       5.133       3.469       2.131       1.632       1.621       25.129         25.096       7.496       6.783       5.126       3.470       2.142       1.635       1.625       26.522         25.096       7.499       6.784       5.120       3.469       2.151       1.637       1.628       27.986         26.509       7.499       6.784       5.120       3.469       2.151       1.637       1.628       27.986         27.994       7.501       6.786       5.114       3.468       2.160       1.641       1.624       31.137         29.553       7.503       6.787       5.105       3.462       2.177       1.644       1.619       34.615					. – .	_		180.	S/RN
20.087       7.486       6.781       5.155       3.452       2.109       1.626       1.616       22.540         21.248       7.488       6.781       5.147       3.462       2.109       1.626       1.617       23.803         22.468       7.491       6.781       5.140       3.466       2.121       1.629       1.617       23.803         23.750       7.493       6.782       5.133       3.469       2.131       1.632       1.621       25.129         25.096       7.496       6.783       5.126       3.469       2.151       1.637       1.625       26.522         25.099       7.499       6.784       5.120       3.469       2.151       1.637       1.628       27.986         26.509       7.501       6.786       5.114       3.468       2.160       1.639       1.627       29.523         27.994       7.503       6.787       5.109       3.465       2.169       1.641       1.624       31.137         29.553       7.503       6.789       5.105       3.462       2.177       1.644       1.621       32.834         31.192       7.507       6.790       5.101       3.458       2.184 <t< td=""><td>L/RN</td><td>0•</td><td>30•</td><td>60•</td><td>90•</td><td>120•</td><td>1550</td><td>200</td><td></td></t<>	L/RN	0•	30•	60•	90•	120•	1550	200	
20.087       7.486       6.781       5.155       3.452       2.109       1.626       1.616       22.540         21.248       7.488       6.781       5.147       3.462       2.109       1.626       1.617       23.803         22.468       7.491       6.781       5.140       3.466       2.121       1.629       1.617       23.803         23.750       7.493       6.782       5.133       3.469       2.131       1.632       1.621       25.129         25.096       7.496       6.783       5.126       3.469       2.151       1.637       1.625       26.522         25.099       7.499       6.784       5.120       3.469       2.151       1.637       1.628       27.986         26.509       7.501       6.786       5.114       3.468       2.160       1.639       1.627       29.523         27.994       7.503       6.787       5.109       3.465       2.169       1.641       1.624       31.137         29.553       7.503       6.789       5.105       3.462       2.177       1.644       1.621       32.834         31.192       7.507       6.790       5.101       3.458       2.184 <t< td=""><td></td><td></td><td></td><td></td><td>- 455</td><td>2 008</td><td>1.624</td><td>1.617</td><td>21.337</td></t<>					- 455	2 008	1.624	1.617	21.337
21.248       7.488       6.781       5.147       3.462       2.121       1.629       1.617       23.803         22.468       7.491       6.781       5.140       3.466       2.121       1.629       1.617       23.803         23.750       7.493       6.782       5.133       3.469       2.131       1.632       1.621       25.129         25.096       7.496       6.783       5.126       3.470       2.142       1.635       1.625       26.522         25.096       7.499       6.784       5.120       3.469       2.151       1.637       1.628       27.986         26.509       7.501       6.786       5.114       3.468       2.160       1.639       1.627       29.523         27.994       7.503       6.787       5.109       3.465       2.169       1.641       1.624       31.137         29.553       7.505       6.789       5.105       3.462       2.177       1.644       1.621       32.834         31.192       7.507       6.790       5.101       3.458       2.184       1.647       1.619       34.615	20.087				_				
22.468       7.491       6.781       5.140       3.469       2.131       1.632       1.621       25.129         23.750       7.493       6.782       5.133       3.469       2.131       1.632       1.625       26.522         25.096       7.496       6.783       5.126       3.470       2.142       1.635       1.625       26.522         26.509       7.499       6.784       5.120       3.469       2.151       1.637       1.628       27.986         27.994       7.501       6.786       5.114       3.468       2.160       1.639       1.627       29.523         27.994       7.503       6.787       5.109       3.465       2.169       1.641       1.624       31.137         29.553       7.505       6.789       5.105       3.462       2.177       1.644       1.621       32.834         31.192       7.507       6.790       5.101       3.458       2.184       1.647       1.619       34.615	21.248	7.488							
23.750     7.493     6.782     5.133     3.469     2.142     1.635     1.625     26.522       25.096     7.496     6.783     5.126     3.470     2.142     1.635     1.628     27.986       26.509     7.499     6.784     5.120     3.469     2.151     1.637     1.628     27.986       27.994     7.501     6.786     5.114     3.468     2.160     1.639     1.627     29.523       27.953     7.503     6.787     5.109     3.465     2.169     1.641     1.624     31.137       31.192     7.505     6.789     5.105     3.462     2.177     1.644     1.621     32.834       32.943     7.507     6.790     5.101     3.458     2.184     1.647     1.619     34.615	22.468	7.491						1-621	
25.096 7.496 6.783 5.126 3.469 2.151 1.637 1.628 27.986 26.509 7.499 6.784 5.120 3.469 2.151 1.637 1.628 27.986 27.994 7.501 6.786 5.114 3.468 2.160 1.639 1.627 29.523 27.994 7.503 6.787 5.109 3.465 2.169 1.641 1.624 31.137 29.553 7.503 6.789 5.105 3.462 2.177 1.644 1.621 32.834 31.192 7.507 6.790 5.101 3.458 2.184 1.647 1.619 34.615	23:•750	7.493							
26.509     7.499     6.784     5.120     3.469     2.151     1.639     1.627     29.523       27.994     7.501     6.786     5.114     3.468     2.160     1.639     1.627     29.523       29.553     7.503     6.787     5.109     3.465     2.169     1.641     1.624     31.137       31.192     7.505     6.789     5.105     3.462     2.177     1.644     1.621     32.834       32.943     7.507     6.790     5.101     3.458     2.184     1.647     1.619     34.615	25.096	7.496							
27.994 7.501 6.786 5.114 3.468 7.180 1.635 7.507 6.787 5.109 3.465 2.169 1.641 1.624 31.137 29.553 7.503 6.787 5.105 3.465 2.177 1.644 1.621 32.834 31.192 7.507 6.789 5.105 3.458 2.184 1.647 1.619 34.615 73.943 7.507 6.790 5.101 3.458 2.184 1.647 1.619 34.615	26.509	7.499							
29.553		7.501						1.624	
31.192 7.505 6.789 5.105 3.462 2.177 1.647 1.619 34.615		7.503							
72: 017 7.507 6.790 5.101 3.455 2.104 1.07		7.505							
3/4310 (970) 94174 7 =	32: 913	7.507	6.790				1.650	1.620	36.487
34.721 7.508 6.792 5.098 3.454 2.190 1.657 4.624 38.454		7.508	6.792						
36.621 7.509 6.794 5.096 3.449 2.190 1.656 1.621 40.521		7.509							40.521
38.617 7.510 6.795 5.095 3.444 2.201 1.650 1.619 42.692		7.510							42.692
40.714 7.510 6.797 7.094 3.430 2.430 4.44 44 074		7.510	6.797						
42-918 7-510 6-798 5-094 3-433 2-209 1-000 1-010 47 371			6.798						
45.234 7.510 6.799 5.1094 3.428 2.213 1.002 1.647 4.0 891			6.799						
47.668 7.509 6.800: 5.095 3.423 2.6219 1.007 1.516 52.538		7.509	6.800			2.215			
50.225 7.509 6.801 5.096 3.418 2.217 1.007 1.615 55.320	-		6.801						
52-912 7-508 6-801 5-098 3-413 2-219 1-000 1-017 75-244	_		6.801						
55.736 7.507 6.801 5.100 3.408 2.221 1.670 1.615 50.316			6.801			-		4 615	
58-703 7-506 6-802 5-102 3-404 2-222 1-671 1-647 6h-5hh			6.802						64.544
64-821 7-505 6-802 5-105 3-400 2-222 1-672 1-644 67-035			6.802						67935
65-1197 7-504 6-802 5-107 3-396 2-223 1-674 1-612 74 699			6.802	5.107					
68-540 7-504 6-801 5-110 3-393 2-223 1-679 1-614 75-244		-	6.801	5110					
72.157 7.503 6.801 5.112 3.389 2.223 1.670 1.612 70.179			6.801	5.112					
75.958 7.502 6.801 5.115 3.386 2.223 1.670 1.012 97.313			6.801	5.115					
70.954 7.584 6.881 5.117 3.384 2.223 1.879 1.012 97.557		-	6.801	5.117					
84.147 7.501 6.800 5.119 3.381 2.223 1.600 1.613 02.220			6.80-0	5.119					92.220
88.554 7.500 6.800 5.121 3.379 2.222 1.000 1.010 32.014			6.800						97.014
93-185 7-500 6-800 5-123 3-377 2-222 1-601 1-609 402 051			6.800	5 <b>•</b> 123				1.60.0	
98.050 7.500 6.799 5.124 3.376 2.221 1.002 1.003 102.312			6.799					1.608	107.342
103.161 7.500 6.799 5.126 3.374 2.221 1.000 4.00 4.22 ann		7.500	6.799					4 600	112-900
108.530 7.500 6.799 5.127 3.373 2.220 1.654 1.608 448 700			6.799	5.127				1.608	118.740
114.171 7.500 6.799 5.128 3.372 2.219 1.604 1.608 124.874			6.799					4 508	124.874
120.096 7.500 6.798 5.129 3.371 2.219 1.009 1.009 1.74.34.8			-6.79.8	5 <sub>•</sub> 129				4 687	434.318
126.320 7.500 6.798 5.130 3.370 2.218 1.005 1.007 138.087			6.798					4 607	138-087
132.859 7.500 6.798 5.130 3.370 2.217 1.000 1.506 1.506 1.5198			6.798		-		1.000	1.606	145-198
139.727 7.500 6.798 5.131 3.369 2.216 1.606 1.606 4.52.667			6.798					4 606	152.667
146.942 7.500 6.798 5.131 3.369 2.216 1.607 1.606 160.513			6.798					1.6116	160.513
154.521 7.500 6.798 5.131 3.369 2.215 1.607 1.68.756			6.798					1.607	168-756
162.482 7.501 6.798 5.131 3.369 2.214 1.603 1.607 177.414		7.501					T • D 0 0	1.607	177.414
170.845 7.501 6.798 5.131 3.369 2.214 1.606 1.606 1.86.509	-	7501	6.798					1.686	186-509
179.630 7.501 6.797 5.131 3.369 2.213 1.506 1.506 1.506 1.506			6.797					1.566	196-063
188.859 7.501 6.797 5.131 3.369 2.212 1.605 1.606 208.166			6.797			2.212		1.606	208-166
200.550 7.502 6.797 5.131 3.369 2.211 1.689 1.606 208.166				5.131	3.369	Ǖ211	1.002	14000	

MACH NO = 10.00 ANGLE OF ATTACK = 10.00 CONE ANGLE = 15.00 P / P FREE-STREAM AT PLANE ANGLES L/PN S/RN 0. 30. 90. 120. 150. 180. 60-1.292 25.572 10.396 .725 23.711 19.197 14.228 8.181 7.474 9.504 .873 23.949 22.114 17.725 13.030 7.497 6.865 1.445 23.349 21.488 17.102 12.500 9.099 7.186 6.588 1.594 1.017 22.364 8.574 1.242 20,483 11.740 6.819 6.272 16.143 1.828 11.067 1.456 21.559 19.657 8.094 6.490 5.998 2.049 15.331 5.715 1.685 20.892 18.957 14.612 10.438 7.623 6.154 2.286 5.397 2.576 1.965 20.415 18.379 13.939 9.802 7.120 5.782 20.277 6.740 2.211 18.059 13.430 9.321 5.515 5.184 2.830 8.890 6.379 4.940 2.498 20.415 18.013 13.091 5.226 3.128 2.743 20.745 18.138 12.943 8.634 6.122 4.996 4.721 3.381 8.423 5.891 4.794 4.516 3.631 2.984 21.218 18.409 12.872 3.261 21.872 18.848 12.901 8.227 5.652 4.595 4.319 3.918 3.494 22.438 19.293 12.977 8.112 5.485 4.450 4.187 4.159 3.723 22.953 5.354 4.079 4.396 19.755 8.036 4.320 13.108 3.986 23.492 20.268 13.298 7.978 5.237 4.181 3.965 4.668 4.208 23.937 7-.948 5.153 4.073 3.869 4.898 20.670 13.489 4-464 24.464 21.111 13.733 7.936 5.062 3.958 3.754 5.163 4.988 4.681 24.908 21:486 7.937 3.872 3.657 5.388 13.949 4.897 25.321 21.869 14.172 7.944 4.920 3.797 3.565 5.612 7.961 5.149 25.738 22.314 14.430 4.853 3.724 3.469 5.872 5.366 26.030 22.678 14.649 7.985 4.808 3.402 6.097 3.672 26.298 14.902 4.77-1 3.341 5.622 23.061 8.026 3.621 6.362 26.469 23.342 8.065 4.747 3.582 3.302 6.593 5.845 15.120 8.107 26.591 23.575 4.727 3.544 3.272 6.828 6.072 15.343 6.344 26.679 23.785 15.609 8.163 4.703 3.499 3.243 7.109 6.584 26.715 23.914 15.844 8.219 4.682 3.457 3.218 7.358 6.831 26.727 23.998 8.278 4.661 3.415 3.188 16.080 7-614 7-.132 3.365 3.145 7.926 26.725 24.042 8:349 4.639 16.351 7.402 26.718 8.415 4.623 3-326 3.100 8.205 24.042 16.574 7:.732 26.702 24.010 16.812 8.499 4.605 3.288 3.043 8.546 8.574 4.587 2.996 8.855 8.030 26.678 23.968 16.991 3.263 2.956 8.344 26.646 23.920 17.143 8.652 4.567 3.245 9.180 8..733 26.607 23.857 17.281 8.754 4.543 3-229 2.926 9.583 9.089 26.582 23.797 8.849 4.529 3.216 2.916 9.951 17.366 9.467 26.567 23.737 8.952 4.521 3.200 2.917 10.342 17.420 9.940 26.559 23.675 17.445 9.088 4.513 3.177 2.923 10.832 10.376 26.557 23.637 17.436 9.216 4.500 3.154 2.925 11-284 10.925 26.558 23.613 17.399 9.379 4.482 3.128 2.917 11.852 3-108 11.434 26.559 9.530 4.473 2.903 12.379 23.607 17.352 12.947 11.983 26.558 23.512 17.295 9.683 4.472 3.091 2.891

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MACH NO = 10.00 CONE ANGLE = 15.00 ANGLE OF ATTACK = 10.00

		P /	P FREE-S	TREAM: AT	PLANE	ANGLES		
L/RN	0.	30.	60.	90:•	120.	150.	180.	S/RN
46 006								
16.826	26.557	23.699	16.929	10.379	4.606	2.928	2.891	17.961
17.821	26.564	23.701	16.895	10.411	4.676	2.899	2.900	18.991
18.880	26.575	23.702	16.867	10.424	4.750	2 - 87.4	2.904	20.088
20.183	26.591	23.701	16.841	10.421	4.846	2.856	2.891	21.437
21.362	26.605	23.700	16.821	10.404	4.935	2.847	2.878	22.657
22.813 24.125	26.619	23.700	16.803	10.37-1	5.032	2.837	2.871	24.159
25.504	26.631 26.642	23.701	16.790	10.334	5.107	2.831	2.863	25.518
27.201	26.652	23.705	16.779	10.294	5.178	2.833	2.848	26.945
28.737	26.658	23.717	16.768 16.759	10.246	5.244 5.288	2.843	2.828	
30.629	26.654	23.725		10.208		2.853	2.814	
32.340	26.667	23.733	16.751 16.747	10.164 10.129	5.333	2.864	2.797	
34.140	26.678	23.740	16.744	10.129	5.365 5.388	2.879 2.899	2.778	34.123
36.357	26.671	23.748	16.744	10.056	5.411	2.033	2.761	35.886
38.364	26.672	23.754	16.747	10.025	5.428	2.941	2.747 2.736	38.181 40.259
40.474	26.671	23.759	16.753	9.994	5.441	2.959	2.723	
43.074	26.669	23.764	16.762	9.960	5.449	2.982	2.709	45.135
45.427	2.6.667	23.767	16.772	9.933	5.454	3.003	2.702	47.571
48.327	26.664	23.769	16.788	9.903	5.458	3.025	2.695	50.573
50.951	26.661	23.769	16.799	9.880	5.457	3.040	2.688	53.290
53.710	26.658	23.769	16.813	9.858	5.452	3.040	2.682	56.146
57.109	26.654	23.769	16.830	9.835	5.444	3.069	2.680	59.666
60.186	26.652	23.768	16.843	9.818	5.436	3.082	2.680	62.850
63.420	26.649	23.766	16.856	9.803	5.428	3.093	2.679	66.199
67.404	26.646	23.765	16.871	9.788	5.416	3.101	2.676	7:0:.323
71.009	26.644	23.763	16.881	9.778	5.406	3.107	2.678	7-4-055
75.449	26.642	23.761	16.892	9.768	5.394	3.115	2.680	7-8-652
79.466	26.541	23.760	16.901	9.761	5.384	3.123	2.682	82.811
83.689	26.640	23.758	16.907	9.756	5.374	3.129	2.682	
88.889	26.640	23.757	16.914	9.753	5.362	3.134	2.681	
93.594	26.640	23.756	16.918	9.751	5.353	3.136	2.683	97.437
99.388	26.640	23.755	16.922	9.750	5.342	3.140	2.688	-
104.629	26.640	23.754	16.925	9.751	5.333	3.145	2.691	
110.138	26.641	23.753	16.926	9.752	5.325	3.149		114.565
116.923	26.642	23.752	16.927	9.754	5.317	3.151	2.688	121.589
123.060	26.642	23.751	16.927	9.757	5.310	3.151	2.690	127.943
129.510	26.643	23.751	16.927	9.760	5.303	3.151	2.693	134. 21
137.454	26.644	23.750	16.927	9.764	5.296	3.153	2.697	142.844
144.640	26.645	23.750	16.926	9.767	5.290	3.155	2.696	15.0 - 28.4
153.488	26.646	23.750	16.924	9.772	5.284	3.156		159.445
161.493	26.647	23.749	16.923	9.776	5.279	3.156	-	167.732
169.907	26.648	23.749	16.921	9.780	5.274	3.155		176.443
180.269	26.649	23.749	16.919	9.785	5.269	3.155		187.169
189.642	26.649	23.749	16.917	9.789	5.265	3.155		196.874
201.185	26.650	23.749	16.915	9.793	5.261	3.156	2.696	208.824

THOU TO TELL TOTAL ANDEL - INTO HOLD OF ALLEND - INTO	MACH NO = 15.00	CONE ANGLE = 15.00	ANGLE OF ATTACK = 10.00
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		P /	P FREE-S	TREAM AT	PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150.	180.	S/RN
700	CC 700	E4 403		70 605	00 303	47 474	45 044	4 000
.728	55.729	51.603	41.628	30.695	22.303	17.474	15.941	1.296
.874	52.472	48.397	38.674	28.299	20.529	16.121	14.737	1.446
1.044	50.669	46.545	36.877	26.822	19.450	15.321	14.033	1.622
1.268	48.314	44.158	34.626	25.042	18.214	14.460	13.295	1.854
1.515	46.171	41.967	32.478	23.265	16.938	13.568	12.543	2.111
1.780	44.548	40.220	30.663	21.662	15.726	12.690	11.795	2.385
2.055	43.668	39.108	29.238	20.303	14.645	11.890	11.115	2.669
2.292	43.575	38.482	28.151	19.279	13.852	11.311	10.651	2.915
2.568	44.041	38.520	27.533	18.410	13.096	10.682	10.091	3.200
2.838	45.071	38.987	27.158	17.774	12.448	10.127	9.544	3.480
3.103	46.468	39.825	27.071	17.244	11.874	9.656	9.076	3.754
3.360	47.962	40.917	27.162	16.857	11.396	9.251	8.704	4.020
3.610	49.322	42.098	27.415	16.606	11.028	8.895	8.403	4.279
3.855	50.533	43.227	27.778	16.434	10.743	8.574	8.134	4.532
4.060	51.550	44.111	28.149	16.326	10.533	8.324	7.911	4.7.44
4.294	52.782	45.088	28.638	16.247	10.305	8.063	7.653	4.987
4.524	54.031	46.077	29.150	16.209	10.091	7.836	7.402	5.225
4.751	55.208	47.113	29.630	16.195	9.900	7.641	7-170	5.460
4.975	56.238	48.174	30.207	16.202	9.744	7.476	6.966	5.693
5.199	57.088	49.203	30.728	16.238	9626	7.335	6.796	5.924
5.423	57.756	50.148	31.248	16.298	9.540	7.211	6.660	6.156
5.617	58.192	50.860	31.700	16.358	9.482	7.112	6.565	6.356
5.845	58.555	51.558	32.250	16.432	9.419	6.999	6.472	6.593
6.078	58.776	52.111	32.828	16.518	9.350	6.885	6.388	6.834
6.316	58.880	52.519	33.438	16.622	9.276	6.768	6.301	7.080
6.560	58.904	52.786	34.070	16.736	9.200	6.650	6.204	7.333
6.813	58.886	52.918	34.709	16.853	9.131	6.537	6.091	7.595
7.076	58.847	52.934	35.335	16.981	9.072	6.434	5.965	7.868
7.311	58.794	52.879	35.845	17.103	9.027	6.361	5.853	8.110
7-596	58.701	52.764	36.391	17.249	8.976	6.293	5.728	8.405
7.896	58.578	52.615	36.868	17.399	8.921	6.242	5.622	8.716
8.212	58.452	52.433	37.265	17.568	8.868	6.202	5.546	9.843
8.547	58.356	52.220	37-574	17.751	8.828	6.162	5.505	9.390
8.903	58.303	51.991	37.790	17.952	8.799	6.114	5.493	9.759
9.282	58.284	51.780	37909	18.191	8.767	6.051	5:• 493	10.151
9.628	58.286	51.638	37.937	18.423	8.723	5.988	5.488	10.510
10.060	58.304	51.531	37.891	18.734	8.658	5.910	5.460	10.956
10.520	58.330	51.487	37.783	19.086	8.600	5.836	5.404	11.433
11.011	58.348	51.495	37.625	19.467	8.557	5.775	5-334	11.941
11.539	58.353	51.543	37.428	19.873	8.507	5.718	5275	12.487
12.110	58.354	51.610	37.203	20.279	8.449	5.652	5.245	13.079
12.732	58.363	51.680	36.974	20.669	8.414	5.571	ية 238 5 و235	13.723
13.314	58.369	51.734	36.795	20.977	8-404	5.502	5.235	14.325
14.058	58.362	51.797	36.619	21.296	8.396	5.429	5.218	15.095
14.877	58.348	51.858	36.483	21.559	8.425	5.356	5.192	15.944

MA	CH NO =	15.00	CONE ANG	LE = 15.	00 ANGL	E OF ATT	ACK = 1	.0 <b>.0</b> 0
		P /	P FREE-S	TREAM A	T PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150.	180.	S/RN
	•	304		,,,,	1200	2700	1000	37 1011
15.775	58.341	51.899	36.382	21.753	8.503	5.266	5.180	16.873
16.751	58.348	51.911	36.306	21.874	8.605	5.166	5.181	17.883
17.812	58.369	51.901	36.246	21.928	8.764	5.081	5.167	18.982
18.804	58.393	51.883	36.203	21.926	8.933	5.023	5.137	20.009
20.042	58.428	51.866	36.169	21.871	9.151	4.951	5.099	21.291
21.350	58.466	51.855	36.151	21.766	9.396	4.883	5.C61	22.645
22.732	58.502	51.850	36.135	21.631	9.627	4.839	5.014	24.076
24.192	58.530	51.852	36.120	21.488	9.846	4.810	4.960	25.588
25.736	58.550	51.864	36.103	21.352	10.039	4.786	4.903	_
27.367	58.565	51.881	36.089	21.225	10.194	4.775	4.845	28.874
28.839	58.574			21.123	10.312	4.780	4.796	30.398
30.648	58.582	51.921	36.069	21.014	10.421	4.793	4.740	32.271
32.561	58.587		36.062	20.915	10.502	4.810	4.685	34.252
34.585	58.591	51.962	36.058	20.824	10.572	4.839	4.630	36.347
36.725	58.593	51.979	36.060	20.741	10.617	4.881	4.583	38.562
3:8.989	58.593	51.993	36.070	20.664	10.647	4.923 4.964	4.541	40.906
41.383 43.545	58.592 58.589	52.003	36.087	20.592	10.671 10.677	5.005	4.501	43.385
46.202	58.584	52.009 52.014		20.534 20.469	10.670	5.057	4.471 4.440	45.623 48.374
49.012	58.578	52.016	36.170	28.408	10.656	5 • 10 4	4.411	51.283
51.984	58.571	52.017	36.207	20.352	10.633	5.143	4.385	54.350
55.127	58.564	52.015	36.244	20.301	10.602	5.182	4.364	57.614
58.451	58.557	52.013	36.281	20.255	10.571	5.222	4.346	61.055
61.966	58.550	52.009	36.317	20.215	10.540	5.254	4.330	64.693
65.138	58.545	52.006	36.344	20.186	10.512	5.274	4.318	67.978
69.036	58.541	52.002	36.373	20.159	10.477	5.299	4.309	72.013
73.158	58.537	51.999	36.398	20.138	10.441	5.327	4.303	76.286
77.515	58.535	51.995	36.419	20.123	10.404	5.350	4.297	80.792
82.122	58.533	51.991	36.436	20.114	10.368	5.364	4.293	85.561
86.992	58.532	51.988		20.109	10.334	5 • 37 <del>-</del> 7	4.293	90.603
92.141	58.532	51.985		20.108	10.300	5.394	4.293	<b>95.</b> 933
96.787	58.533	51.983	36.465	20.110	10.273	5.407		100.743
102.495	58.534				10.243			186.652
108.528	58.536	51.979	36.473	20.124	10.216	5.415		112.898
114.906	58.537	51.977	36.474	20.134	10.192	5.421		119.501
121.648	58,539	51.975	36.473	20.145	10.170	5.427		126.481
128.774	58.542	51.974	36.472	20.157	10-149	5.429		133.859
136.308 143.106	58.544 58.546	51.973	36.469	20.170	10-131	5.425		141.658 148.696
151.458	58 <sub>4</sub> 548	51.972 51.974	36.466 36.462	20.181 20.195	10.117 10.103	5.421 5.418		157.342
160.286	58.550	51.970	36.458	20.208	10.089	5.413		166.482
169.619	58.552	51.97.0	36.453	20.221	10.078	5.405		176.144
179.484	58.553	51.970	36.448	20.234	10.067	5,395		186.357
189.913	58.555	51.969	36.443	20.247	10-057	5.385		197.154
200.938	58.556	51.969	36.438	20.259	10.049	5.375		208.568

# NSHC/HOL/TR 75-45

М	ACH NO =	20.00	CONE ANG	LE = 15.	0 0 ANG	LE OF AT	TACK = 1	0.00
		0 (	P FREE-S	TOTAL A	7 01 416	4464.56		
L/RN	0	-		-		ANGLES		C/011
LIKK	0 •	30.	60.	90.	120.	150.	180.	S/RN
.729	97.948	98.656	73.042	53.754	38.976	30-488	27 707	4 207
•90i	91.890	84.655	67.460	49.222	35.631	27.946	27.797	1.297
1.073	88.499	81.206	64.180	46.575	33.735	26.568	25.538 24.334	1.474 1.652
1.298	84.248	76.901	60.122	43.363	31.501	25.010	23.004	1,886
1.546	80.472	73.040	56.329	40.216	29.230	23.412	21.650	2.143
1.810	77.698	79.017	53,165	37.408	27.099	21.861	20.326	2.416
2.082	76.235	68.112	50.644	35.022	25.210	20.476	19.158	2.697
2.355	76.229	67.881	48.591	33.005	23.639	19.289	18.186	2.980
2.625	77.320	67.278	47.632	31.593	22.356	18.204	17.184	3.259
2.889	79.333	68.274	47.032	30.489	21.233	17.263	16.247	3.533
3.147	81.899	69.871	46.938	29.581	20.249	16.463		3.799
3.396	84.506	71.855	47.122	28.940	19.449	15.769	14.852	4.058
3.673	87.129	74.213	47.677	28.466				-
3.908	89.231	76.115	48.333		18.758	15.069	14.267	4.344
4.138	91.390	77858		28.171	18.278	14.520	13.797	4.588
4.362	93.650		49.122 49.976	27.961	17.848	14.030	13.335	4.826
		79.576		27.836	17.443	13.600	12.884	5.058
4.582	95.881 97.924	81.379	50.868	27.771	17.073	13.228	12.458	5.285
4.799 5.013		83.274	51.772	27.746	16.759	12.910	12.075	5.510
	99.675	85.185	52.661	27.764	16.513	12.637	11.747	5.731
	101.099	87.010	53.545	27.830	16.330	12.398	11.475	5.952
	102.205	88.662	54.432	27.925	16.192	12.180	11.254	6.173
	103.015	90.084	55.354	28.029	16.072	11.973	11.071	6.396
	103.554	91.253	56.327	28.144	15.946	11.767	10.908	6.621
	103.882	92.276	57.516	28.309	15.786	11.527	10.726	6.884
	103.980	92.900	58.618	28.482	15.638	11.314	10.552	7.119
	103.973	93277	59.756	28.661	15.498	11.107	10.357	7.361
	103.911	93.428	65.900	28.852	15.377	10.917	10.140	7.611
	103.806	93.393	62.013	29.067	15.277	10.753	9.910	7.870
	103.641	93.230	63.061	29.296	15.188	10.622	9.684	8.140
	103.410	92.985	64.009	29.524	15.098	10.522	9.483	8.422
	103.148	92.672	64.834	29.769	15.007	10.445	9.326	8.718
	102.919	92.288	65.518	30.038	14.926	10.374	9.223	9.030
	102.765	91.845	66.049	30.320		10.293	9.173	9.358
	102.690	91.389	66.415	30.652	14.805	10.189	9.157	9.706
	102.674	90.940	66.627	31.106	14.709	10.040	9.143	10.130
	102.705	90.662	66.639	31.576	14.587	9.892	9.098	10.528
	102.764	90.508	66.517	32.125	14.462	9.747	9.003	10.949
	102.822	90.467	66.290	32.731	14.364	9.626	8.869	11.393
	102.857	90.519	65.973	33.402	14.270	9.527	8 • 7 2 9	11.866
	10.2.870	90.633	65.578	34.102	14.152	9.431	8.623	12.371
	102.886	90.777	65.136	34.815	14.036	9.315	8.572	12.915
	102.910	90.916	64.696	35.503	13.963	9.179	8.563	13.504
	102.920	91.048	64.306	36,151	13.903	9.043	8.557	14.148
	102.899	91-181	63.987	36.735	13.853	8.914	8.528	14.854
14.577	102.864	91.305	63.741	37.235	13.875	-8.773	8.482	15.633

#### NSHC/HOL/TR 75-45

ANGLE OF ATTACK = 10.08 CONE ANGLE = 15.00 MACH NO = 20.00 P / P FREE-STREAM AT PLANE ANGLES SIRN 180. 120. 150. 90. L/RN e. 30. 60. 8.448 16.590 8.579 13.952 15.501 102.853 91.403 63.553 37.665 17.487 8.431 6-3.436 8.397 37.903 14.077 91.422 16.368 102.859 38.027 14.298 8.395 18.451 63.345 8.244 17.299 102.890 91.403 8.110 8.332 19.498 38.045 14.566 63.271 18.311 102.932 91.357 8.256 20.646 7.961 37.948 14.919 63.223 91.307 19.419 102.980 8.178 21.914 15.326 7.823 91.265 63.198 37.739 20.644 193.037 23.277 7.725 8.091 37.466 15.743 63.189 21.961 103.105 91.242 7.991 24.717 16.164 7.646 63.174 37.183 23.351 103.158 91.239 26.236 7.884 7.572 36.912 16.530 91.259 63.155 24.819 103.197 7.775 27.841 7.525 91.289 63.138 35.657 16.868 26.369 103.223 7.668 29.535 7-503 36.422 17.146 28.006 103.243 91.329 63.120 7.541 31.589 36.179 17.409 7.487 29.989 103.259 91.376 63.104 33.495 7.495 7.428 35.990 17.592 31.830 103.267 63.090 91.417 7.528 7.323 35.509 35.822 17.720 63.079 33.776 103.274 91.454 7.568 7-.228 37.637 17.827 35.673 91.486 63.077 35.831 103.279 39.885 7-614 7.139 17-893 63.087 35.540 38.003 103.283 91.510 42.261 17-.930 7:.677 7.057 63.112 35.418 91.530 40.298 103.282 44.772 7:.752 6.983 35.301 17-.947 91.543 63.150 42.723 103.279 €.913 35.190 17.925 7-.821 47.425 91.552 63.198 45.285 103.272 6.849 50.227 7.892 63.256 35.085 17.882 47.993 103.262 91.556 6.793 53.189 34.986 17-827 7.971 91.557 63.320 50.853 103.251 8.044 56.317 17.762 6.741 34.893 63.388 91.555 53.875 103.238 6.686 60.110 34.798 17.689 8.112 91.551 63.465 57.538 103.224 6.646 63.629 34.726 17.626 8-175 91.546 63.528 60.937 103.212 34.665 17.558 67.346 8.240 6.612 63.587 64.528 103.202 91.539 6.581 71.273 8: 291 17-.488 91.533 63.639 34.616 68.321 103.194 6.555 75.420 8.334 72.327 193.188 91.526 63.684 34.578 17.416 79.801 6.536 17:.343 91.520 63.721 34.552 8.380 76.559 103.184 84.428 34.536 17.270 8.423 6.519 63.751 81.028 103.182 91.514 6.505 8.9.314 17.198 8-451 34.529 91.508 63.774 85.748 103.181 91.503 6.497 94.475 17.130 8.472 63.791 34.529 90.733 103.181 99.325 34.537 17.065 8.497 6.493 63.803 91.498 95.997 103.182 17.006 8.518 6.489 105.580 34.550 63.811 101.556 103.184 91.494 16.944 8.528 6.488 112.554 34.570 108.292 103.188 91.490 63.816 6.492 119.123 8.534 114.540 103.191 91.487 63.816 34.592 16.895 16.851 6.496 125.954 91.484 63.815 34.615 8.543 121.139 103.194 8.544 6.499 133.168 34.641 16.811 63.811 91.481 128.107 103.198 8.536 6.505 140.786 91.479 63.806 34.667 16.776 135.466 103.202 6.511 148.831 8.522 34.693 16.746 91.477 63.800 143.237 103.206 16.720 6.515 157.327 8.505 63.793 34.720 91.476 151.443 103.209 8.479 6.518 166.300 16.697 34.746 160.110 103.212 91.474 63.785 8.441 6.521 175.775 16.677 169.263 103.216 91.474 63.776 34.772 6.523 185.782 8.391 34.797 16.660 91.473 63.768 178.929 103.218 6.519 196.350 8.325 63.759 34.821 16.645 189.137 103.221 91.473 6.511 209.156 8.216 34.847 16.631 91.473 63.748

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201.506 103.223

ANGLE OF ATTACK = 10.00 CONE ANGLE = 15.00 MACH NO = 25.00 ANGLES P / P FREE-STREAM AT PLANE SZRN 180. 90. 120 . 150 . 30. 60. L/RN 0. 1.297 47.223 43.052 .730 152.229 140.865 113.431 83.400 60.421 43.419 39.666 1.469 55.388 .896 143.071 131.790 104.995 76.570 41.327 1.639 37.836 52.525 1.059 137.964 126.593 100.049 72.576 35.844 1.860 38.994 49.180 67.759 1.273 131.521 120.078 93.941 33.534 2.137 36.266 62.354 45.291 1.541 124.969 113.384 87.397 2.396 31.553 33.946 1.791 120.729 108.791 82.623 58.139 42.102 29.766 2.662 39.260 31.847 2.048 118.329 105.767 54.552 78.819 28.384 2.930 75.464 51.376 36.825 30.089 2.307 117.961 103.832 26.714 3.234 34.587 28.227 73.682 48.863 2.601 119.566 104.012 26.797 3.495 32.895 25.290 47.189 72.674 2.853 122.475 105.393 31.382 25.568 24.074 3.750 3.099 126.275 107.668 72.439 45.744 23.098 3.999 24.497 44.694 30.118 72.614 3.339 130.243 110.586 4.274 29.015 23.413 22.190 43.921 73.342 3.605 134.299 114.151 4.509 43.429 22.561 21.476 3.832 137.494 117.081 28.262 74.259 4.738 21.793 20.782 27.597 75.379 43.050 4.053 140.724 119.752 26.877 4.993 21.023 19.998 4.300 144.642 122.706 76.815 42.779 26.289 19.342 5.212 4.511 148.108 125.414 42.655 20.440 78.131 18.741 5.427 42.589 25.777 19.938 79.487 4.719 151.358 128.288 42.582 25.368 19.505 18.215 5.640 4.924 154.213 131.241 80.816 5.881 19.075 17.716 42.668 25.028 82.327 5.158 156.890 134.526 18.737 17.364 6.093 42.801 24.815 83.650 5.362 158.716 137.165 17.073 6.305 18,415 85.018 42.941 24.634 5.567 160.087 139.481 6.520 18.097 16.819 43.087 24.444 5.775 161.037 141.428 86.465 24.192 17.726 16.542 6.770 6.016 161.667 143.182 88.239 43.303 6.994 16.283 43.546 23.949 17:395 6.232 161.899 144.305 89.900 7.223 43.805 23.712 17.067 15.993 91.637 6.454 161.937 145.050 23.478 15.716 15.617 7.494 44.106 6.715 161.851 145.464 93.669 15.259 7.740 6.953 161.700 145.497 95.426 16.449 44.411 23.317 7.996 97.108 16.233 14.899 44.749 23.184 7.200 161.459 145.306 14.568 8.263 45.077 23.054 16.069 7.458 161.109 144.965 98.662 8.583 7.768 160.624 144.433 100.227 15.929 14.265 22.834 45.468 8.879 14.098 22.759 15.822 8.054 160.227 143.839 101.380 45.852 14.002 9.191 8.354 159.943 143.133 102.306 46.245 22.651 15.701 13.976 9.519 8.672 159.789 142.375 102.989 22.561 15.543 46.697 9.919 47.335 22.424 15.309 13.967 9.058 159.748 141.582 103.452 13.915 10.293 47.986 22.234 15.067 9.419 159.778 141.054 103.581 13.783 10.689 9.802 159.872 140.723 103.482 14.823 22.017 48.773 13.571 11.104 49.648 21.842 14.513 10.203 159.983 140.586 103.200 14.429 21.679 13.290 11.608 10.689 160.073 140.626 102.689 50.783 12.078 14.292 13.086 11.143 160.107 140.789 102.093 21.496 51.842 14.131 12.974 12.582 11.630 160.135 141.920 101.396 52.945 21.290 21.130 13.207 12.234 160.182 141.289 100.568 13.898 12.953 54.185 12.967 13.803 55.228 21.024 13,679 1-2-81-0 160-210 141-511 99.906

56.194

57.056

20.902

20.868

13.471

13.258

99.353

98.919

13.440 160.188 141.733

14.131 160.130 141.953

12.943

12.866

14.455

15.172

MACH NO = 25.00 CONE ANGLE = 15.00 ANGLE OF ATTACK = 10.00

		P /	P FREE-S	TREAM A	T PLANE	ANGI ES		
L/RN	0 •	30.	-60•	90.	120-	150.	180,	S/RN
14.984	160.091	142.151	98.577	57.851	20.921	12.969	12.776	16.055
15.776	160.082	142.223	98.378	58.339	21.012	12.578	12.731	16.874
16.620	160.110	142.220	98.229	58.642	21.257	12.415	12.686	17-748
17.526	160.161	142.158	98.110	58.777	21.579	12.201	12.603	18.686
18,656	160.235	142.063	98.018	58.720	22.073	11.945	12.465	19.856
19.745	160.315	141.984	97.977	58.473	22.636	11.713	12.332	20.983
20 948	160.409	141.915	97.965	58.070	23.234	11.528	12.203	22.229
22.462	160.508	141.872	97.948	57.523	24.010	11.370	12.048	23.796
23.868	160.581	141.888	97,935	57.066	24.616	11.230	11.884	25.251
25.351	160.628	141.933	97.911	56.632	25.20-2	11.118	11.700	26.787
26.916	160.663	141.992	97.893	56.232	25.693	11.052	11.522	28.407
		142.068	97.867	55.814	26,186	10.991	11.311	30.371
	160.705		97.846	55.490	26.529	10.964	11.094	32.191
	160.717	142.201	97.826	55.201	26.791	10.978	10.866	34.114
	160.727	142,256	97.810	54.948	27.006	11.008	10.662	36.145
	160.737	142.305	97 - 81 4	54.702	27.152	11.053	10.488	38.606
	160.741	142.338	97.839	54.509	27.249	11.128	10.370	40-890
	160.739		97886	54.329	27.279	11.223	10.255	43.301
	160.732		97.951	54.159	27.258	11.312	10.137	45.848
	160.718	142.390	98.047	53.971	27.189	11.429	10.018	48.934
	160.701		98.143	53.816	27.084	11.547	9.924	51.796
52.428	160.682	142.392	98.248	53.668	26.976	11.652	9.830	54.819
	160.659		98.370	53.513	26.855	11.763	9.730	58.482
	160.641	142.380	98.473	53.393	26.743	11.873	9.657	61.879
	160.624		98.569	53.290	26.631	11.972	9.589	65.466
	160.610	142.361	98.656	53.205	26.516	12.052	9.526	69.253
	160.599		98.741	53.130	26.381	12.149	9.467	73.841
	160.592		98.802	53.083	26.260	12.232	9.423	78.095
	160.587	142.329	98 - 852	53.054	26.138	12.291	9.383	82.586
	160.585	142.320	98-891	53.040	26.01 <i>T</i>	12.340	9,353	87.326
	160.586		98.924	53.040	25.883	12.399	9.325	93.068
	160.588			53.052	25.772	12.438	9.305	98.392
	160.591		-	53.074	25.669	12.462		104.011
106.517		142,290		53.108	25.561	12.491		110.816
	160.601	142.284	98 - 965 98 - 963	53.143 53.183	25.476 25.399	12.513 12.520		117.126 123.786
	160.612			53.225	25.331	12.520		130.815
	160.618			53.275	25.264	12.509		139.329
	160.624			53.319	25.215	12.487		147.222
	160.630			53.363	25.173	12.447		155.553
	160.635	142.264		53.406	25.137	12.390		164.348
	160.640	142.262		53.454	25.104	12.291	-	174.999
	160.645			53.494	25.08.0	12.153		184.874
	160.648			53.533	25.061	11.933		195.299
	160.652			53.575	25.044	11.488	-	207.924
-0040XD	*00 005 F	145.501	20-4-020	200012	ムンチリサオ	*** 400	9 € <del>4</del> 0:	-014764

MACH NO = 30.60 CONE ANGLE = 15.00 ANGLE OF ATTACK = 10.00 PLANE **ANGLES** P / P FREE-STREAM AT L/RN S"RN 30. 60. 90. 120. 150. 180. .730 218.573 202.236 162.795 119.636 86.621 67.691 61.681 1-.298 .896 205.514 189.288 150.761 109.901 79.463 62.265 56.877 1.469 1.059 198.109 181.762 143.606 104.131 75.334 59.256 54.247 1-635 1.304 187.504 171.036 133.537 69.798 55.399 50.950 1.892 96.176 51.950 1.540 179.310 162.662 125.333 89.382 48.029 2.136 64.899 1.789 173.167 156.014 118.436 83.302 60.303 48.607 45.175 2.394 2.082 169.308 151.097 112,159 77.413 55.660 45.208 42.316 2.697 72.999 2.965 2.340 169.216 148.740 107.627 52.257 42.696 40.315 3.230 2.596 171.380 149.022 105.482 69.915 49.474 40.367 38.203 2.883 176.276 151.368 103.886 67.164 46.706 38.043 35.887 3.526 3.127 181.837 154.788 103.634 65.137 44.568 36.312 34.191 3.779 4.025 3.365 187.495 159.049 103.938 63.695 42.806 34.797 32.831 4.298 33.257 31.547 3.628 193.217 164.153 105.042 62.623 41.271 3.852 197.786 168.297 106.375 61.923 40.206 32.046 30.524 4.530 4.071 202.476 172.085 108.003 61.385 39.251 30.959 29.524 4.756 4.315 208.165 176.335 110.058 61.008 38.213 29.870 28.400 5.009 4.523 213.163 180.263 111.944 60.830 37.374 29.049 27.467 5.225 5.437 4.729 217.819 184.432 113.870 60.735 36,654 28.341 26.618 4.960 222.414 189.308 116.023 60.738 36.015 27.647 25.783 5.677 27.116 5.162 225.694 193.431 117.900 60.854 35.613 25.180 5.886 5.364 228.282 197.218 119.782 61.035 35.311 6.095 26.631 24.684 5.596 230.445 200.969 122.029 61.249 35.009 26.101 24.215 6.335 5.801 231.697 203.679 124.122 61.453 34.721 25.638 23.854 6.547 61.769 6.794 6.039 232.493 206.100 126.697 34.340 25.099 23.446 6.253 232.762 207.629 129.105 62.116 33.982 24.622 23.061 7.015 6.472 232.778 208.618 131.620 62.474 33.642 24.154 22.628 7.242 6.731 232.627 209.130 134.551 62.902 33.316 23.661 22.075 7.510 6.966 232.379 209.125 137.078 63.340 33.094 23.293 21.558 7.753 7.210 231.990 208.816 139.489 63.811 32.910 22.999 21.048 8.006 7.502 231.354 208.209 142.010 64.327 32.700 22.750 20.529 8.308 20.178 8.586 7.771 230.715 207.493 143.946 64.812 32.501 22.583 65.341 8.053 230.144 206.594 145.592 32.312 22.427 19.948 8 - 878 8.393 229.707 205.373 147.074 65.961 32.140 22.212 19.826 9.231 8.708 229.523 204.255 147.993 21.963 66.622 32.001 19.798 9.557 9.042 229.483 203.253 148.542 67.411 31.805 21.651 19.774 9.903 9.450 229.568 202.402 148.720 68.484 31.470 21.243 10.325 19.657 9.826 229.727 201.974 148.537 69,616 31.162 20.898 19.428 10.715 19.097 10.221 229.887 201.812 148.093 70.873 30.922 20.611 11.123 10.699 230.015 201.914 147.314 72.507 3.0.678 20.366 18.688 11.619 74.022 30.394 20.176 11.146 230.066 202.177 146.417 18.410 12.081 11.625 238.115 202.525 145.380 75.597 30.099 19.944 18.270 12.576 12.216 230.192 202.925 144.167 77.372 29.877 19.610 18.258 13.189 12.781 230.228 203.253 143.208 78.866 29-703 19:297 18:282 13,774 13.397 230.189 203.589 142.408 80.263 14.411 29.509 18,997 18.245

81.679

29.451

18.636

18.112

15.215

14.174 230.087 203.958 141.707

MACH NO = 30.00 CONE ANGLE = 15.00 ANGLE OF ATTACK = 10.00

		Р/	P FREE-S	TREAM A	T PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150.	180-	S/RN
	030 011	00: 044		00.00	00 170		47.003	45 067
14.900		204-211		82.681	29.478	18.262	17.993	15.967
15.778	230.029		140.982	83.491	29.610	17.784	17.908	16.876
16.598	230.071			83.921	29.947	17.417	17.831	17.725
17.477	230.142			84.113	30.364	17.108	17.705	18.636
18.571	230.244			84.025	31.057	16.732	17.500 17.305	19.767 20.855
19.621	230.360	203.946		83.661	31.815	16.401	17.124	22.054
22.256	230.494	203.842 203.759		83.074 82.266	32.649 33.746	16.138 15.900	16.916	23.582
23.643	230.731			81.578	34.631	15.684	16.689	25.018
25.106	230.800	203.841		80.934	35.495	15.509	16.426	26.533
			140.376	80.259	36.317	15.379	16.148	28.367
28.520	230.887		140.350	79.718	36.977	15.283	15.90.0	30.067
30.254		204.141	140.317	79.235	37.489	15.228	15.600	31.862
	230.929				37.972	15.226	15.184	34.037
	23^.945		140.259	7-8-385	38.268	15.240	14.793	36.053
	230.959		140.261	78.075	38.482	15.277	14.501	38.183
38.850		204.447		77.759	38.640	15.385	14.365	40.763
	230.966			77.507	38.676	15.500	14.255	43.155
	230.957			77.267	38.653	15.615	14.065	45.681
	230.937		140.588	77.002	38.521	15.779	13.876	48.741
	230.913		140.728	76.781	38.357	15.935	13.750	51.579
	230.885		140.878	76.570	38.206	16.075	13.605	54.575
55.698	230.853	~	141.054	76.346	38.013	16.243	13.446	58.204
58.948	230.826		141.204	76.173	37.847	16.398	13.336	61.569
62-885	230.799	204 - 493	141.363	76.003	37.654	16.549	13.213	65.645
66.535	230.780	204.479	141.487	75.882	37.481	16.674	13.114	69.423
70.387	230.765	204.464	141.594	75.786	37.304	16.808	13.029	73.412
75.052	230.754	204.448	141.695	75.710	37.099	16.932	12.942	78.241
79.376	230.749			75.670	36.917	17.017	12.881	82.718
	230.746		141.820	75.652	36.736	17.103	12.831	87.443
89.466	230.747		141.866	75.654	36.534	17.185	12.775	93.163
	230.750		141.893	75.675	36.366	17.233	12.7.38	98.466
99.993			141.910	75.709	36.209	17.281		104.062
106.537		204.377		75.761	36.043	17.329		110.837
				75.816	35.913	17.351		117.116
	230.777			75.876	35.796	17.362		123.743
	230.786			75.948	35.681	17.366		131.766
	230.795			7-6-014	35.596	17.347		139.202
	230.803			76.079	35.524	17.308		147.049
			141.864	76.153	35.457	17.236		156.550
	230.819			76.217	35.409	17.133		165.357
	230.826			76.279	35.370	16.965	-	174.650
			141.804	76.346	35.337	16.638		185.903
			141.783	76.403	35.316	16.109		196.333
201: 318	230.844	204.335	141.760	76.464	35.305	14.813	12.537	208.961

	MACH NO =	3.50	CONE ANG	LE = 20.0	O ANGL	E OF ATT	ACK = 10	• 00
		P /	P ERFE-S	TREAM AT	PLANE	ANGLES		
L/R	N 0.	30 •		90•		150 •	180.	S/RN
L/I		302	3.0					
• 65	8 4.680	4.401	3,708	2.910	2.259		1.734	1.222
•75		4.518	3.770	2.928	2.258		1.727	1.323
- 83		4.580	3.811	2.956	2.278		1.742	1.407
•93		4.618	3.825	2.960	2.284	1.882	1.752	1.518
1.04	5 4.971		3.827	2.952	2 • 279		1.755	1.633
1.19	9 4.977		3.817	2.938	2.268	1.879	1.754	1.755
1.27		4.628	3.802	2.922	2.254	1.871	1.749	1.882
1.42				2.898			1.742	2.043
1.56		4.519		2.880	2.221	1.852	1.736	2.182
1.69		4.624	3.765	2.864		1.842	1.729	2.325
1.83		4.636		2.852			1.723	2.472
1.97		4 • 655		2.843			1.717	2.623 2.776
2.11				2.822			1.716	2.965
2.29		4.677		2.798		1.804	1.710	3.126
2.41				2.804			1.701 1.689	3.290
2.60		4.754		2.823			1.679	3.458
2.79				2.832		1.789	1.675	3.629
	5.264			2.830	2.139	1.792	1.676	3.805
	5.298			2.831	2.131	1•795 1•797	1.684	3.985
	5.329			2.844	2-129	-	1.696	4.209
3.46		4.951		2.865	2.135	1.792	1.704	4.401
3.6		4.978		2 • 878	2.146	1.788	1.708	4.601
3.8				2 • 885	2 • 156 2 • 163		1.706	4.807
4.01				2.898 2.916	2.165	_	1.700	5.021
4.2		5.042		2.910	2.165		1.691	5.244
4.4		5.051 5.081		2.933	2.167		1.683	5.525
4.7		5.095		2.943	2.173	1.80-1	1.683	5.771
4.9				2.971	2.182	1.812	1.691	6.029
5.1				2.989				6.301
5 • 4 5 • 7		5.125		3.001	2.200			
5.9	88 5.523	5.131	4.156	3.012	2.205	1.835		
6.3				3.033			1.755	
6.6		5.140		3.049	2.222	1.843	1.759	7.632
7.0		5.142		3.060	2.234	1.851	1.760	8.004
7.4		5.144		3.072	2.242	1.862	1.763	8.402
7.8		5.145		3.088	2.245	1.871	1.772	8.829
8.2		5.145		3.100	2.248	1.878	1.787	9.287
8.6				3.109	2.256	1.881	1.801	9.779
9.3				3.123	2.268	1.886	1.811	10.419
9.8				3.132	2.275	1.894	1.812	10.997
10.4				3.138	2.279	1.906	1.813	11.620
11.0				3.146	2.286	1.915	1.821	12.290
11.7				3.152	2.297	1.920	1.836	13.012
12.4				3.155	2.305	1.921	1.852	13.789

MAC	н NO =	3.50 C	ONE ANGL	$E = 20 \cdot 0$	O ANGLI	E OF ATT	ACK = 11	0.00
		p / p	FPEE-ST	REAM AT	PLANE	ANGLES		
LADN	G •	30•	60.	90•	120.	150 •	180.	S/RN
LYRN	0 •	30 •	00•	,,,,	200		= -	
47 645	E 576	5.141	4.197	3.159	2.311	1.925	1860	14.798
13.415	5.536	5.141	4.195	3.161	2-318	1.930	1.859	15.707
14.270	5.537	5.141	4.192	3.162	2.326	1.936	1.859	16.682
15.186	5.539	5.142	4.190	3.162	2.333	1.938	1.866	17.727
16.168	5.540	5.142 5.143	4.187	3.16?	2 - 338	1.938	1.874	18.845
17.219	5.542		4.185	3.161	2.343	1.948	1.878	20.038
18.340	5.543	5•144 5•145	4.183	3.159	2.350	1.945	1.874	21.563
19.773	5.545	5.145	4.182	3.158	2-354	1.948	1.873	22.916
21.044	5.546		4.181	3.156	2.356	1.949	1.876	24.348
22.389	5.546	5.148 5.149	4.181	3.154	2.359	1.950	1.880	25.864
23.814	5.547		4.180	3.151	2.362	1.952	1.881	27.468
25.322	5.547	5.150	4.181	3.149	2-363	1.955	1.878	29.167
26.918	5.548	5.151	4.181	3.147	364 ه	1.957	1.876	30.966
28.608	5.548	5.151	4,182	3.144	2-365	1.958	1.877	33.264
30.768	5.547	5.152	4.183	3.142	2366	1.959	1.878	35.304
32.684	5.547	5.153	4.103	3.141	2:.366	1.961	1-877	37.463
34.713	5.547	5.153	4.184	3.139	2.366	1.963	1.874	39.748
36.861	5.547	5.153 5.153	4.186	3.138	2.366	1.964	1.873	42.168
39.135	5.546	5.153 5.153	4.187	3.137	2:•:366	1.964	1.873	44.730
41.543	5.546		4.188	3.135	2:•366	1.965	1.874	48.004
44.619	5.546	5.153 5.153	4.189	3.135	2.365	1.966	1.874	50.908
47.348	5.545	5.153 5.153	4.189	3.134	2.365	1.967	1.873	53.983
50.237	5.545	5.153°	4.190	3.133	2.364	1.967	1.872	57.238
53.296		5.153	4: 190	3.133	2-364	1.967	1.872	60.684
56.534	5.545	5.153	4.191	3.133	2 - 364	1.968	1.873	64.331
59.962	5.545	5.153	4.191	3.133	2.363	1.968	1.873	68.992
64.341	5.545 5.545	5.152	4.192	3.133	2.363	1.968	1.873	73.126
68.226	5.545	5.152	4.192	3.133	2.363	1.968	1.873	77.502
72.338	5.545	5.152	4.192	3.133	2:•362	1.968	1.873	82.135
76.692	5.545	5.152	4.192	3.133	2362	1.969	1.673	87.039
81.300	5.545	5.152	4.192	3.133	2.362	1.969	1.8.3	92.230
86 • 177	5.545	5.152	4.192	3.133	2.362	1.969	1.873	97.724
91.341	5.546		4.192	3.133	2.361		1.873	104.744
97.937 103.789	5.546	5.152	4.192	3.133	2.361	1.969	1.•873	110.972
109.984	5.546	5.152	4.192	3.133	2.361	1.969		117.564
	5.546	5.152	4.191	3.134	2.361	1.970		124.542
116.541 123.482	5.546	5.152	4.191	3.134	2-361	1.970		131.928
130.829	5.546	5.152	4.191	3.134	2.360	1.970	1.873	139.747
140.217	5.546	5.152	4.191	3.134	2.360	1.970	1.873	149.737
148.544	5.546	5.152	4.191	3.134	2.360	1.970		158.599
157.359	5.546	5.152	4.191	3.134	2.360	1.970	1873	167.980
166.691	5.546	5.152	4.191	3.135	2-360	1.970	1.873	177.911
176.569	5.547	5.152	4.191	3.135	2 - 359	1.971	18.7.3	188.423
187.026	5.547	5.152	4.191	3.135	2 • 359	1.971		199.551
200.387	5.547	5.152	4.190	3.135	2-359	1.971	1-873	213.769
5 0 0 0 0 0 L	20771							

MAC	H NO =	5.00	CONE ANGL	E = 20.00	) A'NGL	E OF ATT	ACK = 10	• 0 0
			^-		DI 4115	ANGLES		
	_		P FREE-ST				180.	SZRN
L/RN	ŋ •	30•	60•	90•	120•	150 •	700.	371111
•658	8.598	R.044	6.680	5.134	3.900	3.163	2.925	1.222
•762	8.735	8.142	6.700	5.101				1.333
• 855	8.754	8.138	6.664	5.064			2.867	1.432
•974	8.731	8.096	6.589	4.981				1.558
1.100	8.678	8.028	6.501	4.892				1.692
1.232	8.626	7.961	6.408	4.801		2.949	2.740	1.833
1.370	8.587	7.907		4.710		2.893	2.690	1.980
	8.573	7.875		4.628		2.838	2.643	2.131
1.658		7.872	6.217	4.559		2.786	2.597	2.286
	8.654	7.900		4.505		2.736	2.554	2.442
1.952		7.955		4.463		2.690	2.513	2.599
2.100	8.822	8.009		4.418	3.250	2.646	2.474	2.756
2.249	8.968	8.078	6.155	4.380	3.214	2.606	2.433	2.914
2.398	9.096	8.208	6.229	4.372	3.180	2.576	2.396	3.074
	9.235	8.318		4.380	3.147	2.555	2.368	3.234
	9.354	8.447		4.381	3.120	2.539		3.395
2.853	9.456	8.558	-	4.383	3102	2.522		3.557
3.008	9.542	8.663		4.400	3.096	2.501		3.722
3.165	9.620	8.748		4.430	3099	2•476		3.890
3.325	9.696	8.825	6.640	4.457	3.104	2.450		
3.488	9.771	8.895	6.710	4.477	3.102	2.425		4.234
3.655	9.838	8.964	6.788	4.502	3.093			4.411
3.827	9.896	9.029	6.860	4.537				4.594
4.003	9.943	9.090		4 - 571				4.781
4.185	9.982	9.141		4.598				4.975
4.374	10.015	9.185		4.630				5.177
4.571	10.041	9.219		4 • 673			2.198	5.386
4.777		9.246					2.217	5.605
4.992	10.075	9.266		4.750			2.235	5.834
5.218	10.085	9.281		4 • 787	3.145		2.245	
5•498	10.094	9.291		_	3.165	2.406	2.244	6.373
5.753	10.099	9.295				2.409	2.233	
6.025	10.104	9.297		4.913	3.203	2.421	2.221	6.933
6.314	10.106	9.298		4.95.9				7.241 7.570
6.624	10.106	9.299		4 - 995	3.216	2.450	2.232	7.924
6.956	10.104	9.299		5 • 0.25	3-237	2.455	2 • 254	8.304
7.313	10.102	9.298		5.067	3.267	2.457	2.275	8.715
7-699	10.099	9.296	-	5.098	3.284	2.467	2.284	9.160
8.117	10.097	9.293		5 • 125	3.292 7.747	2.491	2.284	9.642
8.570	10.095	9.291		5.159	3-317	2.519	2.290 2.317	10.165
9.062	10.094	9.288		5.176	3.351	2.537		10.734
9.597	10.093	9.285		5.198	3.367	2.539	2.358 2.390	11.354
10.179	10.093	9,285		5.214	3.382	2.541	2.396	12.028
10.813	10.093	9.284		5.219	3.416	2.564	2.398	12.762
11.502	10-095	9.284	7.341	5•:232	3.43.8	2.592	7.390	120102

MAC	H NO =	5.00 C	ONE ANGLE	= 20.00	ANGL	E-OF ATT	ACK = 10	-00
			************	REAM AT	PLANE	ANGLES		
			FREE-STR	90 •	120.	150 •	180 •	S/RN
L/RN	0.	30•	60•	50 ÷	1504	2300		
	40 007	9.283	7.335	5.232	3.450	2.595	2.423	13.560
12.252	10.097	9.284	7.328	5.234	3.482	2.592	2.459	14.427
13.067	10.100	9.285	7.323	5.234	3.504	2.615	2.472	15.367
13.951 14.909	10.104	9.286	7.318	5.230	3,513	2.638	2.471	16.387
15.945	10.111	9.288	7,314	5.227	3.537	2.633	2.486	17-490
17.055	10.115	9.291	7.310	5 - 221	3.554	2.638	2.512	18.672
18.236	10.118	9.294	7.307	5.216	3.556	2.664	2.515	19.928
19.489	10.121	9.297	7.305	5.209	3.570	2.672	2.508	21.262
20.820	10.123	9.300	7.303	5.202	3.581	2.665	2.518	22.678
22.234	10.125	9.302	7.303	5.196	3.581	2.677	2.532	24.183
23.73.7	10.126	9.305	7.303	5.190	3.585	2.698	2.525	25.781 27.479
25.332	10.127	9.307	7.303	5.183	3.592	2.699	2.513 2.521	29.283
27.027	10.127	9.308	7.305	5.177	3.593	2.695	2.529	31.200
28.828	10.127	9.310	7.306	5 • 171	3.592	2.707	2.519	33.236
30.742	10.127	9•:3 <u>1 1</u>	7.309	5.166	3.593	2.722	2.509	35.773
33-125	10.126	9.312	7.312	5.160	3.593	2.718 2.716	2.519	38.094
35.307	10.126	9 • 312	7.314	5.156	3.591	2.726	2.525	40.561
37.624	10.125	9.312	7.317	5.153	3.589 3.587	2.734	2.515	43.181
40.087	10.124	9.312	7.320	5 • 150	3.585	2.731	2.507	45.964
42.702	10.124	9.312	7.322	5 4 48	3.583	2.728	2.515	48.921
45.481	10.123	9.312	7.324	5.147 5.146	3.581	2.733	2.524	52.062
48.432	10.123	9.312	7.326	5.145	3.578	2.738	2.518	55.399
51.568	10.123	9.311	7•327 7•328	5.145	3.577	2.737	2.510	58.943
54.899	10.123	9.311	7.320	5.145	3.575	2.735	2.512	62.703
58.436	10.123	9.310	7.329	5.146	3.573	2.736	2.520	66.708
62.194	10.123	9.310 9.310	7.330	5.146	3.571	2.738	2.522	70.955
66.186	10.123	9.310	7.330	5.147	3.570	2.739	2.515	75.468
70.426	10.123	9.309	7.330	5.148	3.569	2.738	2.512	80.260
74.93:0	10.124	9.309	7.329	5.149	3.568	2.737	2.516	85.351
79.7 <u>1</u> 4 84.795	10.124	9.309	7.329	5.150	3.567	2.738	2.521	90.758
98.192	10.124	9.309	7.329	5.150	3.566	2.739	2.520	96.502
95.924	10.124	9.309	7.328	5.151	3.565	2.739	2.516	102.602
102.014	10.125	9.309	7.328	5.152	3.565	2.738	2.516	109.082
108.481	10.125	9.309	7.327	5.153	3.564	2.738		115.965
115.351	10.125	9.309	7.327	5.153	3.563	2-739		123.276
122.649		9.309	7.327	5 • 154	3.563	2.739		131.042
130.400	10.125	9.309	7.326	5.154	3.563	2.739		139.291
138.634	10.125	9.309	7.326	5.155	3.562	2.739		148.053 157,360
147.380	10.125	9.309	7 • 326	5.155	3.562	2.739		167.246
156.670	10:125		7.325	5.156	3.562	2:4739		177.748
166.538	10.126		7.325	5.156	3.561	2.739		188.903
177.021	10.125		7.325	5.156	3.561	2.740 2.740		200.752
188 • 155			7.325	5: 157	3.561 3.561	2.740		215.512
202.025	10.126	9.309	7.325	5.157	3.507	C 4 1 7 0		

MACH NO = 10.00 CONE ANGLE = 20.00 ANGLE OF ATTACK = 10.00

		P /	P FREE-S	STREAM A	T PLANE	ANGLES		
L/KN	0.	30.	60.	90.	120.	150.	180.	SZRN
•658	31.410	29.244	23.955	18,050	13.434	10-72-8	9.861	1.222
•939	30.805	28.418	22.807	16.910	12.529	10.033	9,242	1.521
1.265	29.715	27.167	21.363	15.571	11.467	9.214	8.516	1.868
1.633	29.477	26.627	20.376	14.436	10.484			
1.974	30.449					8.439	7.826	2.259
		27.119	20.085	13.778	9.796	7.846	7.287	2.622
2.316	32.175	28.393	20.318	13.416	9.291	7.371	6.841	2.986
2.637	33.568	29.814	20.908	13.293	8.950	7.011	6.495	3.328
2.945	34.607	30.858	21.674	13.330	8.721	6.731	6.217	3.656
3.227	35.554	31.703	22.412	13.456	8.578	6.522	6.002	3.956
3.520	36.297	32.581	23.099	13.648	8.484	6.346	5.812	4.267
3.812	36.734	33.257	23.698	13.881	8.433	6.205	5.655	4.578
4.108	36.957	33.667	24.283	14.148	8.413	6.093	5.523	4.893
4.394	37.028	33.861	24.829	14.426	8.416	6.009	5.418	5.198
4.707	37.045	33.912	25.333	14.730	8.438	5,938	5.326	5.530
5031	37.062	33.869	25.705	15.027	8.474	5.885	5.250	5.876
5.349	37.055	33.820	25.931	15.298	8.517	5.849	5.193	6.214
5.700	37.024	33.776	26.057	15.582	8.572	5.822	5.147	6.588
6.066	37.010	33.722	26.088	15.874	8.634	5.806	5.113	6.977
6.448	37.020	33.678	26.049	16.169	8.7.05	5799	5.092	7.384
6.824	37.037	33.664	25.986	16.433	-8.780°	5.799	5.081	7.783
7.238	37.056	33.675	25.918	16.681	8.356	5.806	5.079	8.224
7.671	37.071	33.700	25.851	16.883	8.959	5.818	5.086	8.685
8122	37.076	33.730	25.787	17.036	9.058	5.834	5.102	9.165
8.567	37.079	33.755	25.738	17.140	9.157	5.853	5.123	9.639
9.059	37.087	33.769	25.705	17.215	9.270	5 • 87 6	5.151	10.162
9.573	37.094	33.777	25.687	17.258	2.390	5.901	5.184	10.708
10.079	37.096	33.783	25.676	17.273	9.510	5.928	5.220	11.248
10.639	37.094	33.786	25.673	17.271	9.642	5.959	5.261	11.844
11.225	37.091	33.782	25.671	17.258	9.777	5.993	5.305	12.467
11-838	37.088	33.772	25.670	17.236	9.909	6.030	5.352	13.119
12.443	37.088	33.760	25.667	17.209	1.0.026	6.068	5.397	13.763
13.112	37.090	33.747	25.662	17.173	10.137	6.112	5.445	14.475
13.812	37.091	33.736	25.655	17.136	10.234	6.158	5.494	15.220
14.545	37.092	33.729	25.646	17-101	10.315	6.206	5.543	16.000
15.268	37.092	33.725	25.636	17.071	10.380	6.253	5.588	16.769
16.068	37.091	33.722	25.623	17.041	10,437	6.304	5.635	17.620
16.905	37.089	33.721	25.611	17.012	10.483	6.357	5.680	18.511
17:.781	37.086	33.720	25.599	16.985	10.519	6.409	5.723	19.444
18.646	37.084	33.720	25.590	16.962	10.544	6.459	5.762	20.365
19.604	37.081	33.720	25.582	16.939	10.561	6.511	5.801	21.384
20.606	37.079	33.720	25.575	16.917	10.572	6.560	5.838	
21.595	37.078	33.721	25.570	16.897	10.576	6.•604	-	22.450
22.690	37.077	33.721	25.565	16.878	10.575	6,647	5.872	23.503
23.836	37.077	33.722	25.563	16.868		-	5.906	24.668
25.036					1.0.569	6.685	5.938	25.888
E2.000	37.077	33.724	25.561	16.844	10.560	6.717	5.968	27.164

MACH NO = 10.00 CONE ANGLE = 20.00 ANGLE OF ATTACK = 10.00

		P /	P FREE-S	TREAM A	T PLANE	ANGLES		
L/RN	0.	30.	60-a	90.	120.	150.	180.	S/RN
						-		
26.220	37.077	33.726	25.561	16.829	10.548	6.744	5.995	28.424
27.530	37.077	33.727	25.563	16.815	10.535	6.768	6.021	29.818
28.901	37.076	33.729	25 - 565	16.801	10.521	6.788	6.045	31.277
30.336	37074	33,731	25.569	16.788	10.508	6.805	6.067	32.804
31.753	37.072	33.732	25.573	16.777	10.496	6.818-	6.086	34.312
33.321	37.070	33.732	25.577	16.767	10.482	6.830	6.105	35.981
34.962	37.068	33.732	25.582	16.757	10.470	6.839	6.121	37.727
36.582	37.067	33.731	25.587	16.749	10,458	6.846	6.136	39.451
38.375	37.065	33.730	25.591	16.741	10.446	6.851	6.150	41.359
40.251	37.063	33.729	25.595	16.734	10.434	6.854	6.164	43.356
42.215	37.062	33.728	25.599	16.729	10,423	6.856	6.178	45.446
44.153	37.062	33.726	25.602	16.724	10.414	6.857	6.190	47.508
46.298	37.062	33.725	25.604	16.720	10.404	6.856	6.203	49.791
48.543	37.062	33.724	25.606	16.716	10.395	6.855	6.215	52.180
50.892	37.062	33.723	25.607	16.713	10.387	6.854	5.227	54.679
53.210	37.063	33.722	25.608	16.710	18.379	6.852	6.237	57.147
55.776	37.063	33.722	25.609	16.708	10.372	6.850	6.248	59.877
58.460	37-064	33.722	25.609	16.705	10.366	6.847	6.258	62.734
61.270	37.064	33.722	25-610	16.703	10.359	6.845	6.267	65.723
64.042	37.064	33.722	25.610	16.701	10.354	6.843	6.276	68.674
67.111	37.065	33723	25.611	16.699	10.349	6.841	5.284	71.939
70.322	37.065	33.723	25.611	16.697	10.344	6.839	6.292	75.356
73.491	37.065	33.723	25.612	16.695	10.340	6.837	6.299	78.729
76.998	37065	337.23	25.612	16.693	10.336	6.836	6.306	82.461
80.668	37-065	33.723	25.613	16.691	10.333	6.834	6.313	86.367
84.509	37.065	33.723	25.614	16.689	10.330	6.832	6.319	90.454
88.300	37.065	33.723	25.615	16.688	10.327	6.831	6.324	94.488
92.495	37.064	33.722	25.616	16.586	10.324	6.829	6.329	98.952
96.885	37.064	33.722	25.617	16.584	10.322	6.828	6.334	103.624
101.478	37.064	33.721	25.617	16.632	10.320	6.826	6.339	108.513
106,013	37.064	33.721	25.618	16.681	10.319	6.825	6.343	113.338
141.031	37.064	33.720	25.619	16.680	10.317	6.824	6.347	118.678
116.282	37.064	33.720	25.620	16.678	10.316	6.823	6.351	124.266
121.465	37.064	33.719	25-620	16.677	10.315	6.822	6.354	129.781
127.200	37.064	33.719	25.621	16.676	10.314	6.821	6.35.7	135.885
133.202	37.064	33.718	25.621	16.675	10.313	6.820	6.360	142.272
139.483	37,064	33.717	25.622	16.674	10.312	6.819	6.363	148.956
145.683	37.064	33.717	25.622	16.673	10.311	6 <b>. 81</b> 8		155.554
152.544	37.064	33.716	25:∙623	16.672	10.311	6.817		162.855
159.723	37.064	33.716	25.623	16.671	10.310	6.816		170.495
167-236	37.063	33.715	25.623	16.670	10.310	6.815		178.491
174.652	37.063	33.715	25.624	16.569	10.310	6.815		186.383
182.859	37,063	33.714	25.624	16.668	10.310	6.814		195.116
191.447	37.063	33.714	25.625	16.568	10.309	6.813		204.256
200.435	37-063	33.713	25.625	16.667	10.309	6.812	6.379	213.820
				•				

ANGLE OF ATTACK = 10.00

CONE ANGLE = 20.00

MACH NO = 15.00

P / P FREE-STREAM AT PLANE **ANGLES** L/RN 30. 60. 90. 120. 150. S/RN 180. .658 69.372 64.521 52.697 39.545 29.304 23.323 21.412 1.222 .970 67.200 61.864 49.395 36.393 26.830 21.431 19.728 1.554 1.314 64.524 58.794 45.844 33.110 24.241 19.426 17.942 1.920 1.694 64.413 57.824 43.650 30.503 21.946 17.598 16.309 2.324 2.059 67.528 59.589 43.161 28.985 20.321 16.179 15.009 2.713 2.399 71.693 62.993 14.022 43.961 28,239 19.221 15.131 3.074 2.716 74.566 66.089 45.524 28.021 18.473 14.335 13.254 3.412 3.019 77.177 68.363 47.381 17.962 28.141 13.712 12,633 3.734 3.310 79.467 70.649 49.113 28.463 17.625 13.217 12.123 4.044 80.914 3.596 72.684 11.696 50.590 28.913 17.412 12.819 4.348 3.882 81.668 74.039 52.009 29.460 17.288 12.494 11.334 4.652 81.934 4.173 74.756 53.494 30.090 17.228 12.228 11.024 4.962 4.471 81.958 74.982 54.897 30.764 17.220 12.011 10.757 5.280 4.781 81.949 74.879 56.008 31.434 17.251 11.837 10.531 5.609 5.102 81.897 74.693 56.753 32.08.0 17.312 11-698 10.341 5.951 5.436 81.773 74.521 57.166 32.732 17.395 11.589 10.184 6.306 5.785 81.704 74.316 57.292 33.429 17.499 11.506 10.057 6.677 6.148 81.717 74.138 57.199 34.167 17.624 11.446 9.957 7.064 6.546 81.773 74.066 56.991 34.933 11.404 17.776 9.879 7.488 6.941 81.844 74.094 56.769 35.592 17.937 11.382 9.828 7.908 7.352 81.901 74.182 56.538 36.140 18.108 11.373 9.800 8.345 7.780 81.927 74.295 56.315 36.563 18.296 11.374 9.792 8.801 8.227 81.949 74.391 56.147 36.874 18.489 11.384 9.801 9.276 8.692 81.978 74.453 56.050 37.084 18.712 9.825 9.772 11.400 81.997 9.178 74.494 56.010 37.201 18.965 11.423 9.864 10.289 9.686 82.003 74.526 56.007 37.241 19.250 11.454 9.914 10.829 10.216 82.004 74.539 56.025 37.229 19.560 11.492 9.975 11.393 81.999 74.531 10.770 56.050 37.184 10.044 19.887 11.537 11.982 81.993 11.348 74.509 56.073 37.108 20.217 11.590 10.121 12.598 11.953 81.989 74.476 56.090 37.005 20.534 11.650 10.204 13.242 81.989 12.585 74.439 56.101 36.891 20.827 11.717 10.292 13.914 13.246 81.990 74.407 56.106 36.783 21.088 11.793 10.383 14.617 13.936 81.993 74.383 56.099 36.687 21.318 15.352 11.876 10.476 81.998 74.367 14.658 56.081 36.603 21.517 11.970 10.569 16.120 81.998 15.412 74.358 56.054 36.528 21.687 12.073 10.661 16.923 81.993 16.201 74.356 56.024 36.460 21.826 12.186 1:0.753 17.762 17.069 81.986 74.358 55.993 36.397 21.938 12.314 10.847 18.686 17.934 81.977 74.361 55.966 36.344 22.015 12.440 10.936 19.606 18.837 81.969 74.364 55.942 36.295 22.065 12.570 11.024 20.568 19.782 81.952 74.366 55.923 36.251 22.091 12.700 11.110 21.573 20.770 81.957 74.367 55.907 36.211 22.095 12.826 11.194 22.625 21.803 81.954 74.368 55.894 36.176 22.080 12.945 11.276 23.724 81.953 74.369 22.884 55**.8**86 36.143 22.049 13.055 11.355 24.874 24.013 81.955 74.370 55.881 36.111 22.011 13.155 11.430 26.076 25.194 81.957 7-4.372 55.879 36,080 21,969 13.246 11.499 27.332

MACH NO = 15.00 CONE ANGLE = 20.00 ANGLE OF ATTACK = 10.00

		P /	P FREE-S	TREAM A	T PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150.	180.	S/RN
26 424	94 050	• 71. 77E	EE 004	76 050	24 027	47 707	11.563	28.545
26.428	81.959	74.375	55.881	36.050 36.022	21.927	13.327 13.399	11.621	30.019
27.718	81.959	74.379	55-∙885 55-∙891	35.995	21.885 21.844	13.462	11.672	31.454
29-067	81.957 81.954	74.383 74.387	55.091	35.970	21.805	13.515	11.718	32,955
30.478	81.949	74.389	55.909	35.947	21.767	13.560	11.759	34.525
31.953 33.495	81.944	74.399	55.920	35.925	21.732	13.595	11.796	36.166
35.107	81.939	74.390	55.932	35.905	21.699	13.622	11.832	37.882
36.793	81.935	74.389	55.943	35.887	21.659	13.541	11.865	39.675
38.555	81.930	74.386	55.953	35.871	21.640	13.654	11.898	41.551
40.497	81.927	74.383	55.962	35.856	21.613	13.661	11.931	43.618
42.428	81.925	74.379	55.970	35.844	21.588	13.663	11.962	45.673
44.447	81.924	74.375	55-977	35.833	21.566	13.661	11.991	47.821
46.558	81.924	74.372	55.981	35.824	21.545	13.655	12.019	50.067
48.764	81.925	74.369	55.985	35.817	21.526	13.648	12.045	52.415
51.070	81.927	74.366	55.987	35.810	21.508	13.640	12.070	54.870
53.482	81.929	74.365	55.988	35.805	21.491	13.632	12.093	57.435
56.002	81.930	74.364	55. 989	35.799	21.475	13.623	12.115	60.118
58.637	81.931	74.364	55: 989	35.794	21.460	13.615	12.136	62.921
61.391	81.932	74.364	55.998	35.790	21.447	13.606	12.156	65.853
64.271	81.933	74.365	55990	35.785	21.434	13.598	12.175	68.917
67.281	81.933	74.366	55.991	35.781	21.422	13,590	12.193	72.120
70-427	81.933	74.366	55.992	35.776	21.411	13,583	12.210	75.469
73.717	81.933	74.367	55993	35.771	21.402	13.576	12.227	78.970
77.156	81.932	74.367	55.995	35.767	21.393	13.570	12.243	82.629
80.751	81.932	74.367	55.997	35.762	21.384	13-564	12.258	86 • 455
84.510	81.932	74.367	55 <b>.,</b> 999-	35.757	21.377	13.558	12.272	90.455
88.439	81.932	74.366	56.001	35.752	21.370	13.553	12.285	94 • 63:7
92.768	81.931	74.365	<b>56.003</b>	35.748	21.364	13.547	12.298	99.244
97-073	81.931	74.364	56.006	35.743	21.359	13.543	12.309	103.824
101.573	81.931	74.363	56.008	35.739	21.354	13.538		108.613
106.277	81.930	74.362	56.010	35.735	21.350	13.534	_	113.619
111.195	81.930	74.361	56.012	35.731	21.346	13.530		118.853
116.337	81.930	74.359	56.014	35.728	21.343	13.526		124.324
121.711	81.930	74.358	56.016	35.724	21.340	13.522		130.044
127331	81.929	74.356	56.017	35.721	21:338	13.518		136.024
133.205	81.929	74.355	56.019	35.718	21.335	13.514		142.275
139.346	81.929	74•,353	56.020	35.715	21.333	13.511	_	148.810
145.766	81.928	74.352	56.021	35.713	21.332	13.507	-	155.642
152.478	81.928	74.351	56.022	35.710	21.330	13.503		162.785
159.494	81.928	74.349	56.023	35.708	21.329	13.500		170.252
166.829	81.927	74.348	56.024	35.706	21.328	13.496		178.058
174.498	81.927	74.347	56.025	35.704	21.327	13.493	-	186.218
182.515	81.927	74.346	56.026	35.702	21.326	13.489		194.750
190.896	81.926	74.344	56.027	35.700	21.325	13.486		203.669
200.130	81.925	74.343	56.028	35.698	21.324	13.482	12.420	213.495

ANGLE OF ATTACK = 10.00

CONE ANGLE = 20.00 MACH NO = 20.00 ANGLES PLANE P / P FREE-STREAM AT SIRN 180. 150 • 90. 120. 60-30 • 9. L/RN 37.581 1.222 40.956 51.524 69.644 .658 122.516 113.909 92.935 1.551 34.530 37.526 47.034 63.898 .968 118.352 108.907 86.859 1.937 33.732 31.147 42.134 80 -119 57.673 1.330 113.257 103.070 2.337 28.248 38.074 30.489 53,075 76.277 1.706 113.282 101.491 25.849 2.740 27.876 35.087 50.291 2.084 119.458 105.067 75.472 3.093 24.132 26.056 33.177 49.009 77.001 2.416 126.772 111.260 22.728 3.440 24.599 31.806 80.002 48.630 2.742 132.002 116.815 3.769 21.599 23.466 48.875 30.878 3.052 137.005 121.055 83-459 4.070 22.610 20.716 30.294 49.449 86,419 3.334 140.927 125.223 19.934 4.380 21.879 29.902 50.285 3.626 143.403 128.916 39.109 19.299 4.676 29.678 21.308 51.255 3.904 144.540 131.134 91.680 4.993 18.722 20.813 29.559 52.424 94.525 4.202 144.860 132.279 5.320 18.226 20.408 29.535 53.656 97.123 4.509 144.829 132.490 5.642 17.822 20.096 29.579 99.002 54.798 4.811 144.790 132.194 5.993 19.830 17.464 29.676 55.967 5.142 144:589 131-815 100.273 6.341 19.628 17.179 29.808 5.469 144.341 131.437 100.881 57.127 6.723 16.933 19.461 5.827 144.256 130.982 100.977 29.989 58.465 7.121 16.735 19.338 30.209 59.878 6.201 144.311 130.672 100.693 7.514 16.591 19.255 30.449 61.182 6.571 144.434 130.602 100.286 7.945 16.483 19.198 30.722 62.399 6.976 144.583 130.705 99.815 16.419 8.372 30.995 19.166 63.342 7.377 144.678 130.908 99.341 8.839 16.386 19.150 31.303 98.896 64.104 7.816 144.732 131.144 9.327 19.148 16.386 31.648 64.651 8.275 144.792 131.325 98.598 9.811 16.413 19.159 32.029 64.986 98.457 8.729 144.845 131.438 10.342 16.466 19.182 32.498 65.161 98.416 9.228 144.867 131.530 10.868 16.538 19.218 65.198 33.007 9.723 144.873 131.586 98.444 11.447 16.632 19.269 33.594 65.148 98.509 10.267 144.875 131.596 12.052 16.744 19.333 34.211 65.024 98.578 10.836 144.867 131.567 12.653 16.864 19.406 54.842 34.796 11.400 144.858 131.517 98.634 17.002 13.314 35.386 19.494 64.606 98.682 12.021 144.851 131.448 13.970 17.140 35.902 19.590 64.383 98.717 12.638 144.846 131.381 14.692 17.292 19.707 36.392 64.174 98.733 13.316 144.848 131.323 15.447 17.446 19.844 36.828 63.994 98.719 14.025 144.858 131.278 16.197 17.594 19.996 37.192 98.682 63.845 14.730 144.866 131.251 17.749 17.022 20.178 37.518 63.707 98.630 15.505 144.864 131.240 17.841 17.896 20.372 37.767 63.593 98.574 16.275 144.855 131.242 18.742 18.052 20.593 37.966 63,489 98.517 17.122 144.840 131.249 18.208 19.686 20.828 38.105 63.397 98 • 465 18.008 144.823 131.258 20.623 18.357 21.058 63.319 38.184 98.422 18.889 144.807 131.265 21.654 18.514 21.300 38.215 98:.385 63.248 19.858 144.794 131.270 18.662 22.679 38.198 21.525 63.191 98-356 26.821 144.784 131.273 23.806 21.751 18.813 38.141 63.136 98.334 21.880 144.778 131.274 24.986 18.958 21.964 38.061 98.320 63.082 22.989 144.779 131.274 26.158 19.087 22,152 37.976 63.031 98.313 24.090 144.783 131.275 27.447 19.212 22.335 37.885 62.978 98.312 25.302 144.789 131.277

ANGLE OF ATTACK = 10.00

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CONE ANGLE = 20.00

MACH NO = 20.00

P / P FREE-STREAM AT PLANE ANGLES L/RN 0. 30. 60. 90. 120. 150. 180. S/RN 26.505 144.794 131.282 98.315 62.930 37-800 22.495 19.318 28.727 27.829 144.795 131.289 98-323 62.882 37-.711 22.646 19.418 30.136 29.143 144.792 131.296 98.335 62.838 37.631 22.773 19.502 31.535 30.590 144.786 131.302 98.351 62.795 37.551 22.887 19.581 33.075 32.104 144.777 131.307 98.370 62.754 37.477 22.980 19.653 34.686 33.608 144.768 131.309 23.050 98.390 62.717 37.414 19.718 36.286 35.262 144.758 131.309 98-410 62.681 37.352 23.105 19.783 38.047 36.906 144.749 131.306 98.429 62.650 37.299 23.141 19.844 39.796 38.715 144.741 131.302 98.448 62.620 37.248 23.163 19.906 41.721 40.607 144.735 131.296 62.594 19.966 98.465 37..203 23.172 43.735 42.487 144.732 131.289 98.478 62.573 37.163 23.169 20.020 45.735 44.555 144.730 131.282 98.490 62.554 37-124 22.159 20.074 47.936 46.609 144.731 131.275 98.497 62.539 37..089 23.145 20.121 50.122 48.869 144.734 131.269 98.503 62.525 37-.054 23,127 20.168 52.527 51.233 144.737 131.265 98.506 62.513 37.021 23.108 20.212 55.043 53.581 144.741 131.262 98.508 62.503 36.993 23.088 20.251 57.542 56.165 144.744 131.260 98.509 62.494 36.965 23.066 20.291 60.291 58.730 144.746 131.260 98.509 62.485 36.948 23.045 20.327 63.021 61.552 144.748 131.261 98.510 62.477 36.915 23.025 20.364 66.024 64.506 144.749 131.262 98.511 62.469 36.892 23.005 20.399 69.167 67.438 144.749 131.264 98.512 62.461 36-872 22.988 20.432 72.288 70.665 144.748 131.265 98:514 62.452 36.852 22.971 20.464 75.722 62.444 73.869 144.747 131.266 98.516 36.835 22.956 28.494 79.132 77.395 144.747 131.266 98-519 62.435 36.818 22.942 20.522 82.884 81.085 144.746 131.266 98: 523 62.426 22.929 36.803 20.549 86.810 84.748 144.746 131.265 98.527 62:417 36..789 22.917 20.573 90.709 88.780 144.745 131.264 98.531 62.408 36.777 22.906 20.596 94.999 92.783 144.744 131.263 98.535 62.400 36.766 22.896 20.617 99.259 97.187 144,744 131.261 98--540 62.391 36.756 22.885 20.637 103.946 101.797 144,743 131.259 98.544 36.747 62.383 22.875 20.655 108.851 106.374 144.742 131.257 98.548 62.375 36.740 22.856 20.672 113.722 111.410 144.742 131.254 98.552 62.368 36.733 22.857 20.688 119.082 62.361 116.411 144.741 131.251 98.556 36.727 22.848 20.703 124.404 121.914 144.741 131.249 98.559 62.355 36..721 22.839 20.717 130.260 127.672 144.740 131.246 98.562 62.348 36.717 22.831 20.731 136.388 22.822 133.391 144.739 131.243 98.564 62.343 36.713 20.743 142.473 139.683 144.739 131.241 98.567 62.337 36-709 22.814 20.755 149.169 145.930 144.738 131.238 98.569 62.333 36.706 22.806 20.766 155.817 152.805 144.738 131.236 98.571 62.328 36.703 22.797 20.776 163.133 159.999 144.737 131.233 98-573 62.323 36.700 22.789 20.787 170.789 167.143 144.736 131.231 98.575 62.319 36.698 22.781 20.796 178.391 175.003 144.736 131.229 98.576 62.315 36.596 22.773 20.806 186.756 182.782 144.735 131.227 98.577 62.314 36.692 22.768 20.814 195.034 191.292 144.734 131.225 98.577 62.312 36.688 22.764 20.822 204.090 200.142 144.733 131.224 98-577 62.311 36.685 22,759 20.830 213.509

MACH NO = 25.00 CONE ANGLE = 20.00 ANGLE OF ATTACK = 10.00

		P /	P FREE-S	STREAM AT	PLANE	ANGLES		
L/RN	ũ •	30.	60.	90.	120.	150.	180,	S/RN
				3.0				
.658	190.834	177.399	144.663	108.332	80.091	63.627	58.366	1.222
		168.811		98.723	72.583	57.896	53.275	1.570
	175.776		-	89.009	64.938	51.971	47.989	1.955
	176.556			81.661	58.389	46.709	43.278	2.375
	186.918	164.034		77.527	53.880	42.739	39.622	2.772
	198.979			75.535	50.742	39.718	36.770	3.155
	206.863			75.129	48.730	37.548	34.668	3.495
		189.547		75.604	47.366	35.852	32.970	3.818
		196.407		76.601	46.469	34.500	31.569	4.129
		201.992		78.022	45.877	33.350	30.333	4.450
			143.719	79.669	45.548	32.452	29.326	4.758
		206.362		81.518	45.391	31.712	28.456	5.073
		206.335		83.409	45.370	31.105	27.705	5.398
		205.702		85.320	45.457	30.589	27.034	5.752
		205.083		87.136	45.616	30.193	26.497	6.104
		204.351		89.109	45.848	29.875	26.849	6.470
		203.648		91.274	46.130	29.627	25.680	6.852
			156.393	93,609	46.497	29.436	25.371	7.271
		203.336		95.682	46.887	29.308	25.149	7.686
						29.222	24.994	8.11-8
			154.843		47.297			8.568
			154.038		47.729	29.168 29.138	24.899	
			153.398		48.230		24.856	9.062
			153.061	100.604	48.787	29.129	24.863	9.55-2
		204.787		100.998	49.452	29.140	24.912	10.064
		204.915		101.140	50.233	29.173	24.999	10.599
			153.067		51.160	29.231	25.124	11.186
	225.704		153.195	100.936	52.108	29.306	25.272	11.771
		204.855		100.647	53.075	29.399	25.446	12.382
			153.407		54.017	29.508	25.640	13.021
		204.632		99.856	54.940	29.643	25.860	13.723
			153.535		55.742	29.795	26.079	14.424
		204.454		99.204	56.466	29.979	26.304	15.156
	225.693		153.482	98.944	57.110	30.201	26.531	15.921
		204.375		98.718	57.691	30.476	26.770	16.762
			153.309		58.140	30.776	27.000	17.601
		204.390		98.352	58.486	31.107	27.233	18.479
			153.130		58.731	31.463	27.470	19.397
			153.052	98.078	58.886	31.853	27.721	20.406
			152.988		58.939	32.229	27.963	21.413
		204.436		97-887	58.905	32.600	28.205	22.466
		204.438		97.808	58.896	32.959	28.441	23.567
		204.437		97.726	58.663	33.318	28.677	24.779
		204.437		97.646	58.513	33.641	28.887	25.986
		204.439		97.568	58.360	33.944	29.079	27.249
26.357	225.580	204.445	152.868	97.494	58.208	34.225	29.250	28.570

MACH NO = 25.00 CONE ANGLE = 20.00 ANGLE OF ATTACK = 10.00

		Р/	P FREE-S	TREAM AT	r PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150.	180.	S/RN
27.721	225.583	204.455	152.881	97.418	58-053	34.493	29.409	30.022
		204,467		97.348	57.912	34.719	29.541	31.470
		204.477		97.281	57.783	34.912	29.661	32.984
		204.485	_	97.218	57.665	35.071	29.772	34.568
		204.490		97.156	57.553	35.201	29.884	36.310
		204.490		97.100	57.458	35.292	29.988	38.047
36.970	225.511	204.486	153.052	97.049	57.372	35.351	30.090	39.864
38.755	225.498	204.479	153.081	97.003	57.296	35.383	30.188	41.764
40.718	225.488	204.469	153.108	96.961	57.224	35.392	30.287	43.853
42.676	225.483	204.457	153.130	96.927	57.162	35.363	30.375	45.936
44.723	225.481	204.446	153.147	96.898	57.103	35.362	30.456	48.115
		204.435		96.873	57.047	35.334	30.531	50.394
		204.425		96.851	56.992	35.299	30.605 <sub>%</sub>	
		204.418		96.833	56.944	35.252	30.672	55.396
		204.414		96.817	56.899	35.222	30.736	58.007
		263.412		96.802	56.•856	35.182	30.797	60.738
-		204.412		96.788	56.815	35.141	30.860	63.741
		204.413		96.775	56 • 778	35.104	30.917	66.734
		204.416		96.762	56-743	35.070	30.97	69.864
		204.418	_	96.749	56.711	35.039	31.027	73.138
		204.420		96.735	56.679	35.010	31.080	76.737
-		204.421		96.721	56.651	34.984	31.127	80.326
		204.421		96.707	56.625	34.960	31.171	84.079
		204.421	_	96.693	56.602	34.938	31.211	88.003
		204.417		96.678 96.664	56 •579 56 •560	34.917 34.901	31.249 31.283	92.318 96.617
-	-	204.417	-	96.655	56.537	34.893	31.313	
		204.414	-	96.647	56.517	34.886	_	105.681
		204.411	-	96.638	56.497	34.878	31.366	
	225.500		153.226	96.631	56.479	34.879		115.625
_		204.405		96.625	56.463	34.863	31.412	
	-	204.402		96.619	56.448	34.856	31.432	
	225.497		153.231	96.614	56.434	34.848	31.453	
-		204.396		96.610	56.421	34.840	31.472	
	225.495			96.606	56.409	34.832	31.489	
139.725	225.495	204.391	153.231	96.603	56.397	34.824	31.506	
145.855	225.494	204.389	153.229	96.601	56.•385	34.816	31.524	155.737
151.882	225.493	204.387	153.228	96.600	56.374	34.808	31.540	162.150
		204.386		96.599	56.363	34.799	31.556	
		204.384		90.598	56352	34.791	31.572	175.576
		204.383		96.599	56.340	34.783	31.588	
		204.381		96.599	56.329	34.775	31.603	
_		204.380		96.600	56.318	34.767	31.618	
		204.380		96.601	56.306	34,759	31.633	
200.140	225.485	204.379	153.208	96.603	56.294	34.750	31.649	213.506

MACH NO = 30.00 CONE ANGLE = 20.00 ANGLE OF ATTACK = 10.00

		Р/	P FREE-S	STREAM	AT PLANE	ANGLES		
L/RN	0.	30.	<b>50.</b>	90.	120.	150 •	180.	S/RN
•658	274.338	254.999	207.894	155.628	115.006	31.339	83.773	1.222
.984	263.724	242.476	193.024	141.709	104.146	83.048	76.410	1.569
	252.051					74.074	68.404	1.975
	254.413					66.242	61.382	2.413
	271.189					60.461	56.042	2.825
	287.626					56.294	52.095	3.202
	299.451					53.147	49.032	3.554
	311.075					50.703	46.572	3.888
	319.048					48.764	44.549	4.210
	323.151					47.190	42.843	4.528
	324.551					45.901	41.381	4.851
	324.552					44.846	40.123	5.182
	324.419					44.025	39.092	5.50.9
	32-3.971		-			43.324	38.173	5.865
	323.256					42.760	37.403	6.237
	322.971					42.314	36.765	6.625
	323.080				-	41.974	36.247	7.031
	323.403					41-728	35.842	7.453
	323.781					41.556	35.545	7.894
	324.026					41.441	35.348	8.354
	324.178					41.370	35.238	8.834
	324.348			-		41.331	35.206	9.336
	324.461					41.323	35.243	9.860
	324.489					41.347	35.336	10.381
	324.504					41.406	35.485	10.953
	324.505					41.495	35.682	11.552
	324.490						-	12.180
	324.472					41.611	35.922	
						41.752	36.195	12.837
	324.446					41920	36.495	13.525
	324.435					42.123	36.810	14.245
	324.455					42.373	37.135	15.000
	324.481			-		42.584	37.465	15.791
	324.489					43.060	37.797	16.620
	324.473					43.497	38.133	17.488
	324.441					43.963	38.461	18.353
	324.400					44.492	38,812	19.305
	324.359					45.047	39.170	20.302
19.569			219.719		,	45.611	39.534	21.347
20.598			219.641			46.170	39.897	22.442
21.677			219.588			46.713	40.250	23.590
	324.279					47.233	40.585	24.792
	324.291					47.729	40.897	26.053
	324.308					48.198	41.179	27.373
	324.321					48.633	41.428	28.756
27.894	324.325	293.884	219.565	139.607	82.867	49.029	41.645	30.206

MACH NO = 30.00 CONE ANGLE = 20.00 ANGLE OF ATTACK = 10.00

		P /	P FREE-S	STREAM A	AT PLANE	ANGLES		
L/RN	0.	30.	60.	90.	120.	150.	180.	S/RN
29.252			219.594		82.661	49.361	41.828	31.651
30.745			219.634		82.464	49.658	42.005	33.239
32.308					82.287	49.898	42.17.1	34.903
33.947			219.728		82.129	50.081	42.333	36.647
			219.777		81.989	50.211	42.492	38.475
			219.823		81.866	50.289	42.646	40.390
			219.865		81.758	50.324	42.794	42.398
			219.902		81.661	50.324	42.932	44.501
	324.177		219.933		81.570	50.300	43.059	46.705
			219.955		81.484	50.260	43.176	49.014
47.841	324.182	293.846	219.971	138.820	81.403	50.208	43.285	51.433
50.107	324.190	293.834	219.980	138.792	81.332	50.152	43.383	53.844
52.597	324.199	293.825	219.985	138.766	81.263	50.087	43.482	56.494
55.206	324.208	293.820	219.987	138.743	81.198	50.020	43.576	59.270
57.939	324.214	293.819	219.987	138.722	81.137	49.955	43.669	62.179
60.802	324.219	293.820	219.988	138.702	81.080	49.893	43.758	65.226
63.803	324.221	293.823	219.989	138.683	81.026	49.835	43.846	68.419
66.946	324.222	293.826	219.991	138.663	80.976	49.783	43.930	71.764
70.240			219.995		80.929	49.736	44.009	75.270
73.689	324.218	293.832	220.000	13624	80.884	49.697	44.081	78.948
	324.216		220.004	138.611	80.333	49.681	44.142	82.737
	324.214		220.007	138.599	80.786	49.666	44.197	86.651
84.543	324.213	293.836	220.011	138.587	80.744	49.653	44.245	90.490
88.444	324.211	293.834	220.015	138.575	80.704	49.640	44.293	94.642
	324.210		220.019	138.563	80.666	49.628	44.337	98.921
	324.208	293.830	220.022	138.552	80.632	49.616	44.379	103.331
			220.026	138.542	80.600	49.604	44.418	107.874
			220.028		80.570	49.593		112.554
109.804	324.203	293.821	220.030	138.526	80.543	49.581	44.489	117.373
			220.030		80.517	49.570	44.520	122,333
			220.029		80.492	49.558	44.550	127.436
			220.028		80.469	49.546	44.578	1.32.684
	324.198		220.025		80.446	49.534	44.605	138.078
			220.022		80.424	49.523	44.638	143.351
139.554	324.196	293.805	220.018	138.504	80.402	49.511	44.657	149.031
			220.014		80.380	49.498	44.683	154.858
			220.009			49.486		160.829
			220.003			49.474		166.944
			219.997			49.461		173.200
			219.991			49.449		179.595
			219.984			49.436		186.124
			219.976			49.424		192.783
			219.969			49.411		199.567
			219.961			49.399	_	206.468
			219.952			49.387	24 -	213.479
					~ · · · · ·			,,,

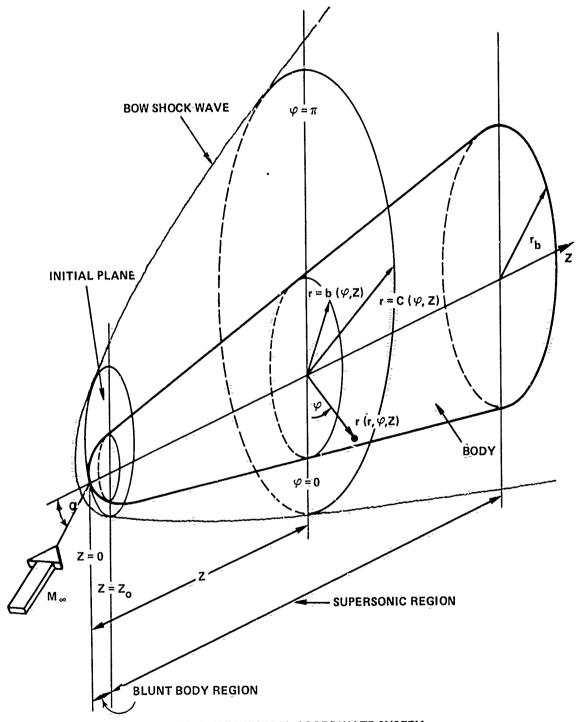


FIG. 1 CYLINDRICAL COORDINATE SYSTEM

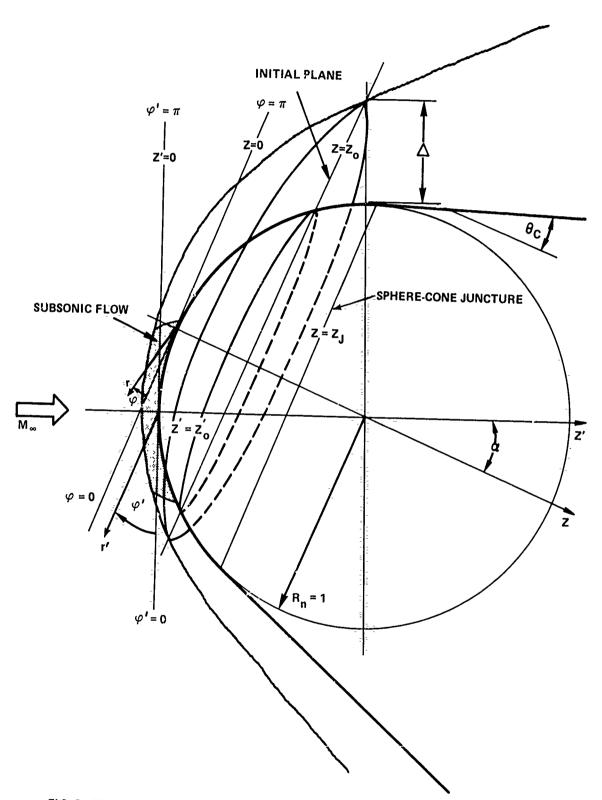
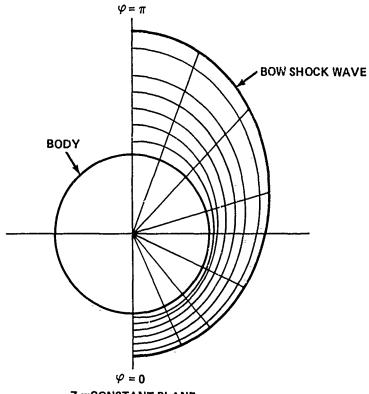
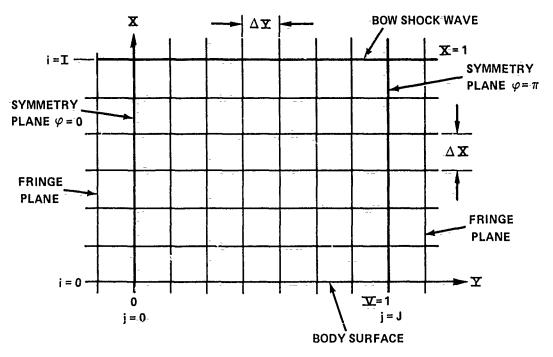


FIG. 2 UNIT HEMISPHERE IN A WIND ORIENTED CYLINDRICAL COORDINATE SYSTEM.

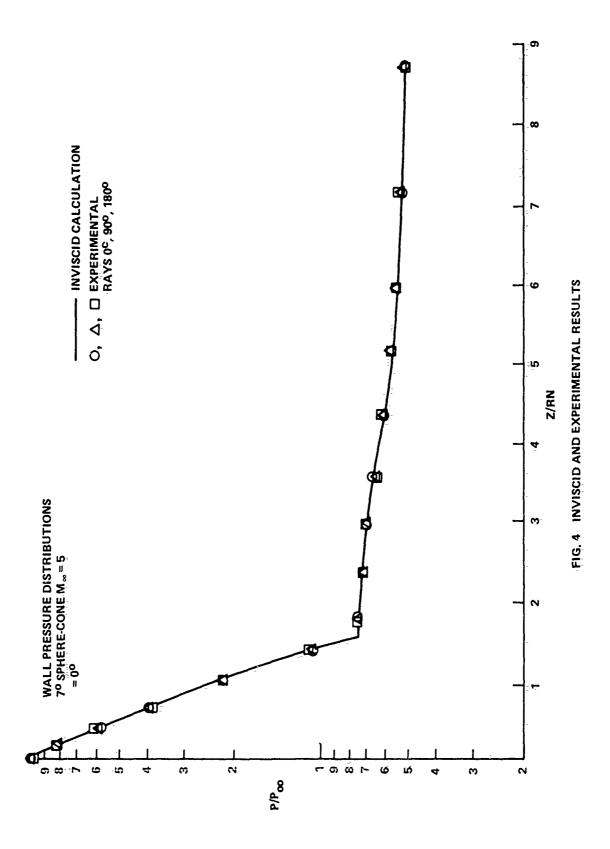


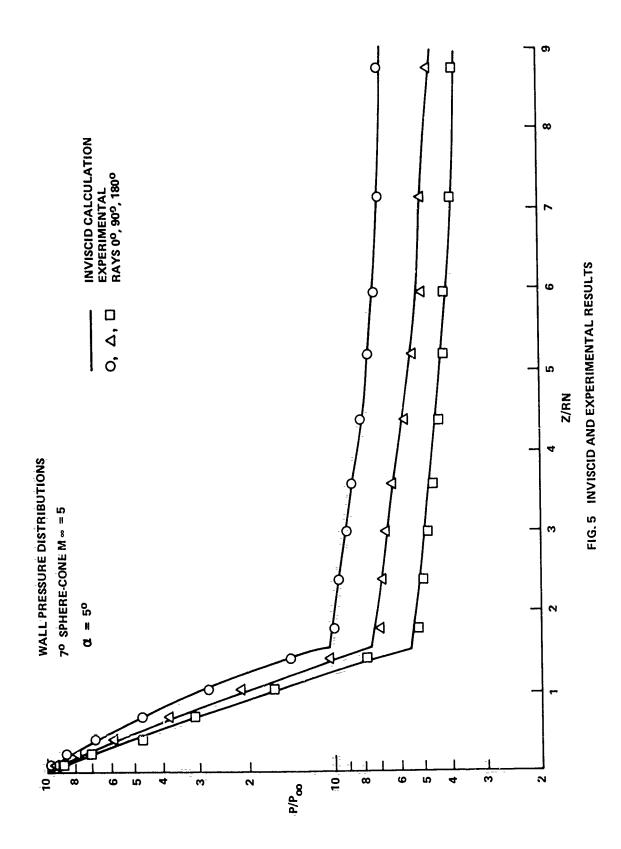
Z = CONSTANT PLANE



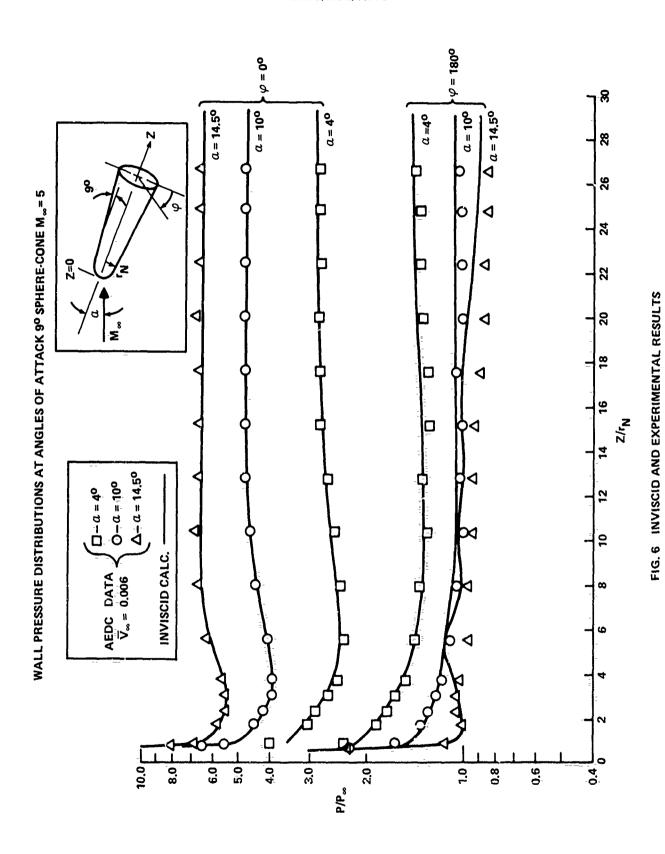
Z = CONSTANT-PLANE

FIG. 3 DISCRETIZED COMPUTATIONAL-PLANE.





à



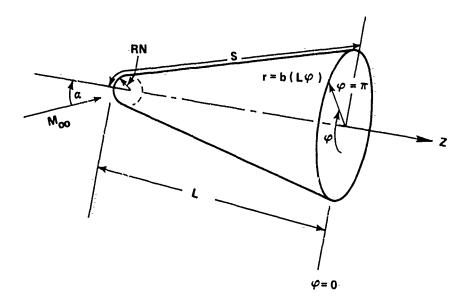


FIG. 7 DEFINITION OF TERMS USED IN PRESSURE DISTRIBUTION TABLE

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